



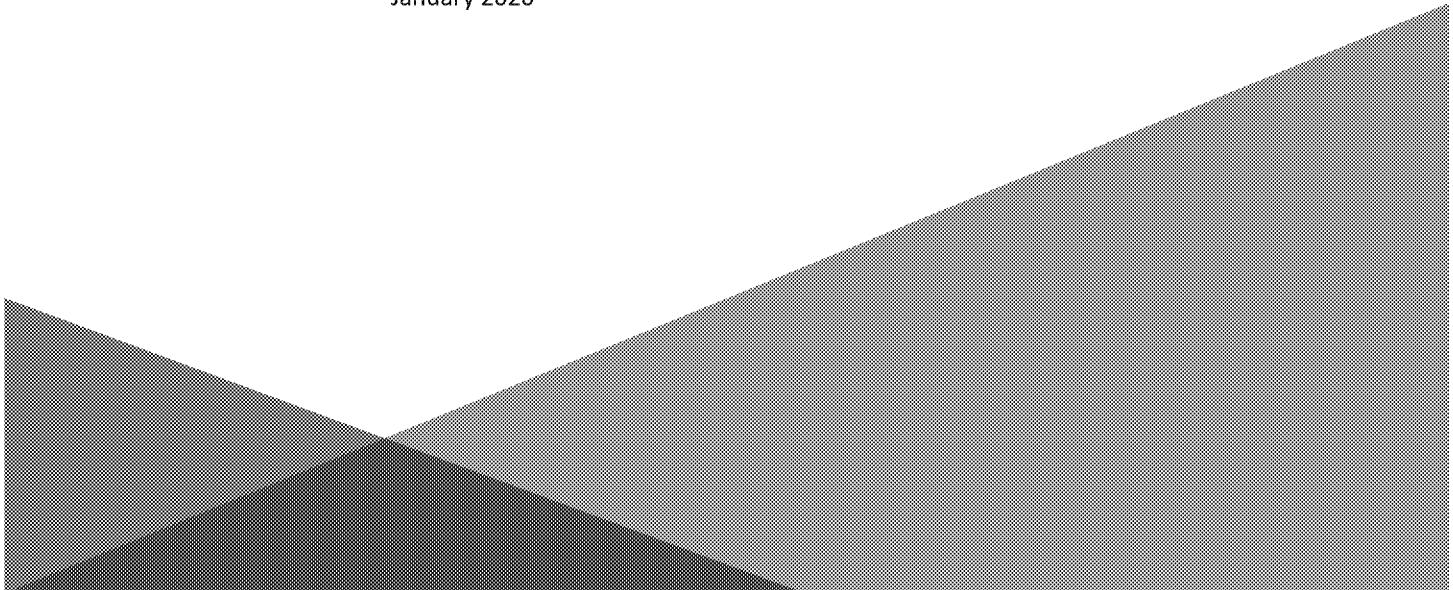
[www.haleyaldrich.com](http://www.haleyaldrich.com)

2019 ANNUAL GROUNDWATER MONITORING REPORT  
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

by  
Haley & Aldrich, Inc.  
Oakland, California

for  
Advanced Micro Devices, Inc.  
Austin, Texas

File No. 127819-005  
January 2020





HALEY & ALDRICH, INC.  
1956 Webster Street  
Suite 300  
Oakland, CA 94612  
510.879.4544

30 January 2020  
File No. 127819-005

United States Environmental Protection Agency, Region 9  
75 Hawthorne Street (SFD-7-1)  
San Francisco, California 94105

Attention: Mr. Michael Schulman

Subject: 2019 Annual Groundwater Monitoring Report  
Former 901/902 Thompson Place  
Sunnyvale, California

Dear Mr. Schulman:

Please find enclosed the 2019 Annual Groundwater Monitoring Report (Report) prepared by Haley & Aldrich, Inc., on behalf of Advanced Micro Devices, Inc. (AMD). This Report documents the results of the 2019 annual groundwater monitoring program and provides a summary of the in situ bioremediation program for the former AMD facility located at 901/902 Thompson Place in Sunnyvale, California.

Please feel free to call the undersigned if you have questions regarding this report.

Sincerely yours,  
HALEY & ALDRICH, INC.

Michael Calhoun, PG, CHG  
Senior Project Manager  
CA PG #8525, CA CHG #976

Peter Bennett, PG, CHG  
Principal Hydrogeologist  
CA PG #7902, CA CHG #921

#### Enclosures

c: Advanced Micro Devices, Inc.; Attn: Ms. Heather O'Cleirigh  
City of Sunnyvale; Attn: Mr. Ron Staricha  
Santa Clara Valley Water District; Attn: Mr. George Cook

\\\haleyaldrich.com\share\oak\_common\Advanced Micro Devices\1\_Formal 901-902 Thompson Place\DELIVERABLES\Annual  
GWMR\2019\1\_text\2020\_0129\_HAI\_2019 AGWMR Thompson\_F.docx



HALEY & ALDRICH, INC.  
1956 WEBSTER STREET  
SUITE 300  
OAKLAND, CA 94612  
510.879.4544

SIGNATURE PAGE FOR

2019 ANNUAL GROUNDWATER MONITORING REPORT  
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

PREPARED FOR  
ADVANCED MICRO DEVICES, INC.  
AUSTIN, TEXAS

PREPARED BY:

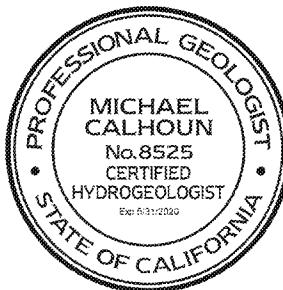
Christopher Ciervo  
Staff Geologist  
Haley & Aldrich, Inc.

Michael Zlotoff, PE  
Technical Specialist  
Haley & Aldrich, Inc.

REVIEWED AND APPROVED BY:

Michael Calhoun, PG, CHG  
Senior Project Manager  
Haley & Aldrich, Inc.

Peter Bennett, PG, CHG  
Principal Hydrogeologist  
Haley & Aldrich, Inc.



## Table of Contents

	Page
<b>List of Tables</b>	<b>v</b>
<b>List of Figures</b>	<b>v</b>
<b>List of Abbreviations</b>	<b>vi</b>
<b>1. Introduction</b>	<b>1</b>
<b>2. Background</b>	<b>2</b>
2.1 SITE HISTORY AND CHEMICAL USE	2
2.2 HYDROGEOLOGIC CONDITIONS	2
2.3 CHEMICALS OF CONCERN	3
2.4 CURRENT REMEDIAL ALTERNATIVE	4
2.5 ROUTINE MONITORING ACTIVITIES	4
<b>3. 2019 Annual Groundwater Monitoring</b>	<b>5</b>
3.1 SITE WORK IN 2019	5
3.2 MONITORING PROGRAM	5
3.2.1 2019 Annual Groundwater Monitoring Event Methods	5
3.3 GROUNDWATER ELEVATION DATA	6
3.4 ANALYTICAL RESULTS	6
3.4.1 Concentrations in the ISB Treatment Area	7
3.4.2 Concentrations in the Area Upgradient of the ISB Treatment Area	8
3.4.3 Concentrations in Off-Site Monitoring Wells	8
3.5 QUALITY ASSURANCE/QUALITY CONTROL	9
3.6 DISCUSSION AND CONCLUSIONS	10
<b>4. 2019 In Situ Bioremediation Program Summary</b>	<b>11</b>
4.1 OVERVIEW OF THE ISB SYSTEM	11
4.2 ISB SYSTEM OPERATION IN 2019	11
4.3 ISB PERFORMANCE MONITORING	12
4.4 ISB ACTIVITIES PLANNED FOR 2020	13
<b>References</b>	<b>14</b>

## Table of Contents

	Page
<b>Tables</b>	
<b>Figures</b>	
<b>Appendix A</b> – Field Sampling Data Sheets	
<b>Appendix B</b> – Historical Groundwater Elevation Data	
<b>Appendix C</b> – Historical TCE, cDCE, and Total VOC Concentrations	
<b>Appendix D</b> – Laboratory Analytical Reports	
<b>Appendix E</b> – Quality Assurance/Quality Control Data	
<b>Appendix F</b> – Concentration Trend Plots for Site Monitoring Wells	
<b>Appendix G</b> – Concentration Trend Plots for ISB Performance Monitoring Wells	

## List of Tables

Table No.	Title
1	Well Construction Details
2	Groundwater Elevations, 8 October 2019
3	Analytical Results for Groundwater Samples, October 2019
4	Historical In Situ Bioremediation System Substrate Amendment Summary
5	In Situ Bioremediation Operational Summary – 2019
6	Analytical Results for ISB Program Groundwater Samples

## List of Figures

Figure No.	Title
1	Site Location Map
2	A-Zone Water Levels, October 2019
3	B1-Zone Water Levels, October 2019
4	B2-Zone Water Levels, October 2019
5	A-Zone TCE Contours, October 2019
6	B1-Zone TCE Contours, October 2019
7	B2-Zone TCE Contours, October 2019
8	A-Zone cDCE Contours, October 2019
9	B1-Zone cDCE Contours, October 2019
10	B2-Zone cDCE Contours, October 2019
11	Layout of the In Situ Bioremediation Program

## List of Abbreviations

Abbreviation	Definition
µg/L	micrograms per liter
AMD	Advanced Micro Devices, Inc.
bgs	below ground surface
ANS	acid neutralization system
cDCE	cis-1,2-Dichloroethene
COC	chemical of concern
EPA	United States Environmental Protection Agency
FFS	focused feasibility study
g/L	grams per liter
Geomatrix	Geomatrix Consultants, Inc.
Haley & Aldrich	Haley & Aldrich, Inc.
ISB	in situ bioremediation
MNA	monitored natural attenuation
NAVD88	North American Vertical Datum of 1988
QA/QC	quality assurance/quality control
ROD	Record of Decision
Site	901/902 Thompson Place in Sunnyvale, California
TCE	trichloroethene
tDCE	trans-1,2-Tichloroethene
TOC	total organic carbon
VC	vinyl chloride
VOC	volatile organic compound
Water Board	California Regional Water Quality Control Board, San Francisco Bay Region

## **1. Introduction**

On behalf of Advanced Micro Devices, Inc. (AMD), Haley & Aldrich, Inc. (Haley & Aldrich) has prepared this *2019 Annual Groundwater Monitoring Report* (Report) for the former AMD facility located at 901/902 Thompson Place in Sunnyvale, California (Site; Figure 1). This Report documents the results of the 2019 annual groundwater monitoring program and provides a summary of the 2019 in situ bioremediation (ISB) program for the Site.

The Site was added to the National Priorities List in June 1986, and a Record of Decision (ROD) was issued by the United States Environmental Protection Agency (EPA) on 11 September 1991 (EPA, 1991). The Site was regulated under Site Cleanup Requirements Order Number 91-102 issued on 19 June 1991 by the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board, 1991). The Water Board was the lead regulatory oversight agency for the Site pursuant to the South Bay Multi-Site Cooperative Agreement and the South Bay Groundwater Contamination Enforcement Agreement, established on 2 May 1985 by the Water Board, the Department of Health Services, and the EPA. However, the lead agency role was transferred from the Water Board back to the EPA as described in a letter from EPA to AMD, Northrop Grumman, and Philips Semiconductors dated 7 August 2014.

## **2. Background**

The Site is approximately 4 miles south of the southern end of San Francisco Bay and comprises approximately three acres of relatively flat land at an average elevation of 48 feet above sea level. Neighboring properties are used for light industrial and commercial purposes.

Two low-rise buildings connected by a hallway previously existed at the Site (901 and 902 Thompson Place). The property was sold to Summit Commercial Properties and redeveloped in 2007. The 901 and 902 buildings were razed and a single three-story building (875 East Arques Avenue) was constructed over the footprints of the previous buildings.

A network of 21 wells is currently monitored for groundwater quality on an annual basis. A network of 12 wells in the ISB area is currently monitored on a semiannual basis to evaluate the performance of the ISB system. Well construction details for the current well network are provided in Table 1.

### **2.1 SITE HISTORY AND CHEMICAL USE**

AMD designed and fabricated semiconductor devices at the Site between 1969 and 1992 (Engineering Science, 1992). Two underground acid neutralization system (ANS) tank vaults were located at the northern and southern ends of the former 901/902 Thompson Place buildings, respectively (Arcadis, 2001). Both ANS tanks were constructed of coated concrete, had 2,000-gallon capacities or less (Arcadis, 2001), and were used to contain acidic industrial wastewater for neutralization with caustic before discharge to the sanitary sewer (Parsons, 1996).

Chemicals historically used by AMD for semiconductor fabrication at the Site included solvents and corrosives (Engineering Science, 1988). Records of chemical use prior to 1980 are not available; it has been inferred by others that trichloroethene (TCE) was used on-Site between 1969 and 1979 (Engineering Science, 1988). The primary on-Site source of TCE impacts to groundwater and soil beneath the Site appears to have been wastewater leaks containing volatile organic compounds (VOCs) from cracks in the ANS tanks that developed over time (Engineering Science, 1988). The two ANS tanks were removed between 1983 and 1984 and replaced by two sets of three underground storage tanks and associated vaulted containment systems (Arcadis, 2001). As of 1980, most of the solvent waste generated by Site activities was collected and stored in an aboveground storage tank (Arcadis, 2001). Hazardous waste materials were containerized in 55-gallon drums in a hazardous material storage area.

The facility was vacated by AMD in 1992 and remained vacant until the property was sold to Summit Commercial Properties in 2007 after which it was redeveloped as a self-storage facility.

### **2.2 HYDROGEOLOGIC CONDITIONS**

The Site is in the central portion of the Santa Clara Valley within the Coast Range physiographic province, an area characterized by north-south trending valleys and mountains. The Site is located within the San Jose Subarea of the South Bay Groundwater Basin. This area is characterized by a thick alluvial sequence underlain by sediments of the Santa Clara Formation (California Department of Water Resources, 1967). The alluvium is generally considered to be water-bearing, with coarse-grained alluvial deposits representing ancestral stream channels and levee deposits that convey groundwater from the forebay regions south and west of the Site near the Santa Cruz Mountains toward San Francisco Bay

(Holley et al., 1979). This depositional environment has resulted in a high degree of heterogeneity with respect to hydrogeologic conditions beneath the Site.

Engineering Science (1986) describes the Site's hydrostratigraphy as a sequence of coarse-grained sediments separated primarily by silty clay. From shallow to deep, the primary hydrostratigraphic zones are described as follows:

- The A Zone, an approximately 5-foot-thick, relatively continuous sandy layer typically encountered between 7 and 20 feet below ground surface (bgs);
- The B1 Zone, an approximately 3-foot-thick, discontinuous, lenticular, sand and gravel unit typically encountered between 22 and 40 feet bgs;
- The B2 Zone, an approximately 4-foot-thick, discontinuous sequence of sand and gravel lenses typically encountered between 45 and 65 feet bgs; and
- The B3 Zone, a system of two sandy layers approximately 1 and 4 feet thick, respectively, typically encountered between approximately 70 and 80 feet bgs.

The depth intervals designated for each zone are not consistent among many of the early reports on Site hydrogeology. Different interpretations of depth intervals for various zones likely occurred because of the complex nature of the alluvial system beneath the Site, in which sand zones comprise elongated, channel-type deposits that can occur at various depths and widths, with a meandering three-dimensional configuration, rather than a series of horizontal, continuous layers. Nonetheless, A-Zone wells are generally screened from 10 to 25 feet bgs; B1-Zone wells are generally screened from 25 to 45 feet bgs; B2-Zone wells are generally screened from 45 to 55 feet bgs; and the one B3-Zone well (35-DDD) is screened from 70 to 80 feet bgs (Engineering Science, 1982).

The uppermost groundwater surface is typically encountered at approximately 10 feet bgs and generally occurs under confined conditions. Upward vertical hydraulic gradient values were calculated between the three zones in 2019 (see Section 3.3), although downward vertical hydraulic gradient values have been reported at some locations during previous groundwater monitoring events (e.g., Geomatrix Consultants, Inc. [Geomatrix], 2007a). The horizontal hydraulic gradient is generally to the north-northeast, toward the San Francisco Bay. This is consistent with the regional hydraulic gradient direction under natural conditions (EPA, 1991).

## 2.3 CHEMICALS OF CONCERN

As part of a baseline public health evaluation (Clement Associates, 1990), the complete list of chemicals detected in environmental media was evaluated and a subset of those chemicals was selected to represent the chemicals of concern (COCs) for groundwater at the Site. Ten COCs for groundwater were selected in the ROD (EPA, 1991) for the Site:

- Tetrachloroethene;
- TCE;
- cis-1,2-Dichloroethene (cDCE);
- trans-1,2-Dichloroethene (tDCE);
- Vinyl chloride (VC);

- \* 1,1-Dichloroethene;
- \* 1,1-Dichloroethane;
- \* 1,2-Dichlorobenzene;
- \* 1,1,1-Trichloroethane; and
- \* Freon 113.

Of these, the major COCs reported in groundwater samples above cleanup goals are TCE and cDCE, both of which have been present in most groundwater samples from the A-, B1-, and B2-Zone wells, but rarely in the B3-Zone well, likely because of the upward gradient from the B3 Zone to the B2 Zone. VC has also been detected in groundwater samples collected from the ISB treatment area (VC is an interim breakdown product of TCE and cDCE during the microbially-mediated reductive dechlorination to ethene).

#### **2.4 CURRENT REMEDIAL ALTERNATIVE**

The ROD specifies groundwater extraction and treatment as the remedial alternative for the Site. The groundwater extraction and treatment system began operating in 1983 and continued through 2002 when it was discontinued with Water Board approval to allow for the ISB pilot test. Based on the success of the pilot test, a full-scale ISB program was initiated in 2005 with Water Board approval. Under this program, extracted groundwater was treated with carbon filtration before carbohydrate was added as a substrate for ISB, followed by reinjection to form a groundwater treatment zone. A description of the ISB operational history and current status is included in Section 4.

In 2011, AMD submitted a Focused Feasibility Study (FFS) to the Water Board and EPA to evaluate the current and potential revised cleanup plans (AMEC Environment & Infrastructure, Inc., 2011). Based on the FFS, the proposed Site remedy is ISB with monitored natural attenuation (MNA) and institutional controls. The EPA reviewed the FFS and provided comments to AMD via the Water Board in June 2013. Haley & Aldrich incorporated the comments and submitted a Revised FFS in September 2013 (Haley & Aldrich, 2013). The Revised FFS is currently under review by EPA.

#### **2.5 ROUTINE MONITORING ACTIVITIES**

Annual groundwater monitoring is performed to evaluate the overall cleanup status at the Site. Annual monitoring activities are performed in accordance with the ROD and the revised monitoring program approved by the Water Board on 27 December 2007 (Geomatrix, 2008). A detailed description of annual monitoring activities is included in Section 3.

ISB was implemented in the area of the former 901 Thompson source area. In accordance with the monitoring program provided in the *Full Scale In Situ Bioremediation Work Plan* (Geomatrix, 2005), a subset of on-Site monitoring wells located in the ISB groundwater treatment zone are monitored on a quarterly basis<sup>1</sup> to assess the performance of the ISB program.

---

<sup>1</sup> In an email dated 5 September 2019, EPA approved a change in ISB performance monitoring frequency to a semiannual basis. ISB performance monitoring was conducted during the first, second, and third quarters of 2019, and will continue to be conducted in the first and third quarters of each year moving forward.

### **3. 2019 Annual Groundwater Monitoring**

This section documents the methods and results of the 2019 annual groundwater monitoring event.

#### **3.1 SITE WORK IN 2019**

The following occurred at the Site in 2019:

- Annual groundwater sampling of Site monitoring wells;
- Decommissioning of well 16-D (described in Section 3.2);
- Operation of the ISB system, including substrate amendment and groundwater circulation (described in Section 4); and
- Performance monitoring of the ISB program (described in Section 4).

#### **3.2 MONITORING PROGRAM**

Site monitoring activities for the 2019 annual sampling event were completed in accordance with the revised monitoring program approved by the Water Board on 27 December 2007 (Geomatrix, 2008). A total of 21 monitoring wells were included in the annual sampling event. In 2018, the integrity of well 16-D was found to be compromised due to a suspected break in the casing (Haley & Aldrich, 2018; 2019a). With EPA approval, this well was removed from the monitoring program and well DW-7 (located approximately 10 feet away and screened at a similar depth interval as 16-D) was added to the monitoring program in its place. Well 16-D was decommissioned on 16 September 2019, and the decommissioning activities were documented in the third quarter 2019 ISB program update (Haley & Aldrich, 2019e).

##### **3.2.1 2019 Annual Groundwater Monitoring Event Methods**

Blaine Tech Services, Inc. of San Jose, California, conducted the 2019 annual groundwater monitoring event on behalf of AMD. Water levels were measured on 8 October 2019 and were timed to coincide with water level measurement from other nearby cleanup sites. Groundwater samples were collected from 21 Site monitoring wells on 17 and 18 October 2019. Four of the sampled wells (16-S, 23-S, DW-7, and 23-D) are included in both the annual groundwater monitoring program and the ISB performance monitoring program.

The 17 Site monitoring wells were purged prior to collecting samples with a portable submersible pump, or (in the case of well 27-S) a Teflon bailer until the water quality parameters (temperature, pH, and specific conductance) stabilized and a minimum of three casing volumes were removed. Well 27-S was purged using a Teflon bailer due to a small water column. If more water was present, a submersible pump would have been used to purge the well. In cases where the well dewatered during purging, the well was allowed to recharge prior to sampling. Samples were then collected with Teflon bailers. The four wells included in both the 2019 annual groundwater monitoring event and the quarterly ISB performance monitoring event were purged with a bladder pump and Teflon tubing using low-flow methods. After water quality parameters stabilized, samples were collected from the pump effluent.

Samples were collected in 40-milliliter volatile organic analysis vials preserved with hydrochloric acid, then labeled, sealed in plastic bags, and placed in an ice-cooled chest pending shipment to the analytical laboratory under standard chain of custody procedures. Quality assurance/quality control (QA/QC) samples, including blind field duplicates, equipment blanks, and trip blanks were collected in addition to the groundwater samples. All reused, downhole equipment (e.g., pump) was decontaminated after each well with a steam cleaner. Purge water was discharged into the groundwater treatment system operating at the nearby AMD 915 DeGuigne Drive site. Field sampling data sheets documenting the sampling procedures are included in Appendix A.

Samples were analyzed for chlorinated VOCs consistent with EPA Method 8260B by Eurofins TestAmerica of Pleasanton, California, a California- and National Environmental Laboratory Accreditation Program-certified laboratory.

### 3.3 GROUNDWATER ELEVATION DATA

Water levels measured on 8 October 2019 are summarized in Table 2. Historical groundwater elevation data are included in Appendix B. Interpretations of the potentiometric surfaces for the A, B1, and B2 Zones are shown on Figures 2, 3, and 4, respectively.

Groundwater elevations for Site monitoring wells were calculated as the measured water level depths subtracted from the surveyed top of well casing elevations. Calculated groundwater elevations for water levels measured in October 2019 ranged from:

- ✿ 35.37 to 42.26 feet relative to the North American Vertical Datum of 1988 (NAVD88) in A-Zone wells;
- ✿ 35.40 to 43.95 feet NAVD88 in B1-Zone wells;
- ✿ 36.80 to 43.53 feet NAVD88 in B2-Zone wells; and
- ✿ 42.87 feet NAVD88 in B3-Zone well 35-DDD.

Water levels measured in October 2019 were consistent with historical results.

As illustrated on Figures 2 through 4, the approximate direction of the horizontal hydraulic gradient is generally north-northeast except where locally influenced by groundwater extraction wells at the Philips Semiconductor and 915 DeGuigne Drive sites. At locations where water levels were measured for well pairs representing multiple depth intervals (i.e., 16-S/DW-7, 23-S/23-D, 27-S/27-D, 28-S/28-D, 29-S/29-D, 36-S/36-D, 27-D/27-DD, and 36-D/36-DD), the direction of calculated vertical hydraulic gradients is upwards.

### 3.4 ANALYTICAL RESULTS

Laboratory analytical results for groundwater samples collected in October 2019 are summarized in Table 3. Historical analytical results for TCE, cDCE, and total VOCs are included in Appendix C. The laboratory analytical reports are included in Appendix D.

Of the COCs listed in the ROD, only TCE, cDCE, tDCE, and VC were detected above their respective cleanup goals<sup>2</sup> during the 2019 annual groundwater monitoring event (Table 3). The distribution of these compounds is described in the sections below. The maximum concentration of primary and field duplicate sample results are considered for the purpose of these sections. For simplicity, data validation qualifiers are not included in the discussion below but are provided in Table 3.

### 3.4.1 Concentrations in the ISB Treatment Area

There are nine wells included in the annual groundwater monitoring program in or near the ISB treatment area: 16-S, 22-S, 22-DD, 23-S, 23-D, 28-S, 28-D, 35-DDD, and DW-7.

- \* In the A Zone, concentrations of the primary COCs observed the following:
  - TCE ranged from non-detect (less than 0.50 micrograms per liter [ $\mu\text{g}/\text{L}$ ] at two wells) to 43  $\mu\text{g}/\text{L}$  (23-S);
  - cDCE ranged from 4.1  $\mu\text{g}/\text{L}$  (16-S) to 52  $\mu\text{g}/\text{L}$  (23-S);
  - tDCE ranged from non-detect (less than 0.50  $\mu\text{g}/\text{L}$  at two wells) to 6.6  $\mu\text{g}/\text{L}$  (22-S), which is below the cleanup goal of 10  $\mu\text{g}/\text{L}$ ; and
  - VC ranged from non-detect (less than 0.50  $\mu\text{g}/\text{L}$  at well 23-S) to 44  $\mu\text{g}/\text{L}$  (28-S).
- \* In the B1 Zone, concentrations of the primary COCs observed the following:
  - TCE ranged from non-detect (less than 0.50  $\mu\text{g}/\text{L}$  at 28-D<sup>3</sup>) to 290  $\mu\text{g}/\text{L}$  (23-D);
  - cDCE ranged from 4.1  $\mu\text{g}/\text{L}$  (23-D) to 160  $\mu\text{g}/\text{L}$  (DW-7);
  - tDCE ranged from non-detect (less than 0.5  $\mu\text{g}/\text{L}$  at well 23-D) to 1.9  $\mu\text{g}/\text{L}$  (DW-7), which is below the cleanup goal of 10  $\mu\text{g}/\text{L}$ ; and
  - VC concentrations ranged from non-detect (less than 0.5  $\mu\text{g}/\text{L}$  at well 23-D) to 44  $\mu\text{g}/\text{L}$  (28-D).
- \* For the B2-Zone well 22-DD:
  - TCE and cDCE were detected at concentrations of 150  $\mu\text{g}/\text{L}$  and 10  $\mu\text{g}/\text{L}$ , respectively; and
  - tDCE and VC were not detected above the laboratory reporting limit (less than 0.50  $\mu\text{g}/\text{L}$ ).
- \* For the B3-Zone well 35-DDD, no COCs were detected above the laboratory reporting limit, which was less than 0.50  $\mu\text{g}/\text{L}$  for most COCs.

The ISB area is the location of the former source area, and historically has had the highest COC concentrations. However, based on the source remediation and ongoing ISB in this area, concentrations have decreased significantly (up to several orders of magnitude since the start of remediation). The

---

<sup>2</sup> The cleanup goal is the lower of the federal or California Maximum Contaminant Levels.

<sup>3</sup> TCE was not detected above the laboratory reporting limit in well 28-D, but the results were rejected due to QA/QC issues (see Section 3.5 for details). However, TCE has not been detected in 28-D above 0.50  $\mu\text{g}/\text{L}$  since 2011; therefore, the result is consistent with recent historical data and is included in this discussion for completeness.

higher concentrations of breakdown products (cDCE and VC) relative to TCE in most wells in the ISB treatment area are indicative of ongoing ISB processes, as discussed in Section 4.

### 3.4.2 Concentrations in the Area Upgradient of the ISB Treatment Area

Eight on-Site wells located upgradient of the ISB treatment area monitor groundwater quality entering the Site from upgradient: 15-S, 27-S, 27-D, 27-DD, 29-S, 29-D, 52-D, and 53-D. Concentrations of the primary COCs observed the following:

- \* TCE concentrations ranged from:
  - 4.6 µg/L to 35 µg/L in the A Zone;
  - 6.9 µg/L to 67 µg/L in the B1 Zone; and
  - 22 µg/L in the B2 Zone.
- \* cDCE concentrations ranged from:
  - Non-detect (less than 0.50 µg/L) to 290 µg/L in the A Zone;
  - Non-detect (less than 0.50 µg/L) to 2.1 µg/L in the B1 Zone; and
  - 7.6 µg/L in the B2 Zone.
- \* tDCE concentrations ranged from:
  - Non-detect (less than 0.50 µg/L) to 15 µg/L in the A Zone;
  - Non-detect (less than 0.50 µg/L) in all B1 Zone wells; and
  - Detected at a concentration of 0.83 µg/L in the B2 Zone.
- \* VC was detected in one upgradient monitoring well (A-Zone well 27-S), at a concentration of 16 µg/L.

Except for one well (27-S), the TCE concentrations in the samples collected from the upgradient wells were greater than cDCE. The cDCE concentrations remained below the cleanup goal of 6 µg/L in all of the upgradient wells except for 27-S and 27-DD. The TCE and cDCE concentrations observed at the well cluster of 27-S, 27-D, and 27-DD were greater than those at other upgradient wells within each well's respective aquifer. These wells are likely affected by off-Site, upgradient, non-AMD sources (Haley & Aldrich, 2013). Other off-Site wells located upgradient of this well cluster, upgradient of the Site in general (and also upgradient of source areas on the adjacent Philips Site) have TCE concentrations above the cleanup level. For example, off-Site wells S157A and S157B1 located hydraulically upgradient of 27-S and 27-D (monitored by Philips) reported TCE concentrations of 18 and 80 µg/L in the A and B1 Zones, respectively (Figures 5 and 6).

### 3.4.3 Concentrations in Off-Site Monitoring Wells

In the three downgradient, off-Site monitoring wells (36-S, 36-D, and 36-DD), the following concentrations were observed:

- In the A-Zone well 36-S:
  - TCE was detected at 58 µg/L;

- cDCE at 12 µg/L; and
- tDCE and VC were non-detect (less than 0.50 µg/L).
- In B1-Zone well 36-D:
  - TCE was detected at 43 µg/L;
  - cDCE at 21 µg/L;
  - tDCE at 1.1 µg/L; and
  - VC was non-detect.
- In B2-Zone well 36-DD,
  - TCE was detected at 1.0 µg/L;
  - cDCE at 12 µg/L;
  - tDCE at 1.1 µg/L; and
  - VC at 1.7 µg/L.

In the cross-gradient, off-Site A-Zone monitoring well (37-S):

- \* TCE was detected at 37 µg/L;
- \* cDCE at 7.0 µg/L; and
- \* tDCE and VC were non-detect (less than 0.50 µg/L).

This well is located at the southwest corner of the TRW Microwave site; based on the interpreted direction of groundwater flow, it is located approximately downgradient of the Philips source area south of Stewart Drive.

### 3.5 QUALITY ASSURANCE/QUALITY CONTROL

Laboratory analytical data were reviewed in accordance with the *National Functional Guidelines for Organic Superfund Methods Data Review* (EPA, 2018). Appendix E summarizes QA/QC data. As noted in Haley & Aldrich's response to the EPA's comments for the Combined 2018 Annual Groundwater Monitoring Report and Annual In Situ Bioremediation Report (Haley & Aldrich, 2019c), quality control measures were implemented to minimize the qualification or rejection of VOC results because of headspace in the samples, including: (a) requesting that the laboratory analyze the samples within seven days of collection; (b) documenting on the field data sheets that the sampling containers contained no headspace at the time of sample collection or shipment; and (c) performing a field audit to ensure proper sampling techniques were followed.

The laboratory reported that, when the samples were analyzed, headspace was present in the sample vials collected from wells 27-DD and 28-D, as well as the duplicate sample collected from well 23-D. However, headspace was not observed during sample collection or at the time of receipt at the laboratory. Air bubbles may have formed in the samples while being held at the laboratory from a reaction with the hydrochloric acid preservative in the vials. Haley & Aldrich will consider collecting the samples in unpreserved vials in future events to eliminate this possibility. The TCE, tDCE, and

chloroethane results in the sample from 28-D were qualified as rejected and not usable; other results were qualified as estimated but deemed usable.

Overall, the results of the laboratory quality control sample analyses indicate that the test results in this report are of sufficient quality to support the conclusions presented, and the results are valid and usable.

### 3.6 DISCUSSION AND CONCLUSIONS

TCE and cDCE concentrations within the A, B1, and B2 Zones are shown on Figures 5 through 7 and Figures 8 through 10, respectively. Isoconcentration contours for detections above the cleanup goal are also depicted on the figures. These figures incorporate data from the adjacent Philips Semiconductors, former TRW Microwave, Mohawk Laboratories, and The Companies' OffSite Operable Unit wells in the Site's vicinity. The analytical results from the adjacent sites were provided by Locus Technologies (consultant for Philips Semiconductors), Groundwater and Environmental Services, Inc. (consultant for TRW Microwave), and Apex Companies (consultant for Mohawk Laboratories). Data tables are provided in their respective site monitoring reports.

As shown on Figures 5 through 10, TCE and cDCE were detected in groundwater samples from monitoring wells along the western side of the Site (e.g., 27-S, 27-D, and 27-DD) and southwest of the Site, indicating an off-Site upgradient source impacting groundwater beneath the western portion of the Site. COC detections at upgradient wells 15-S, 29-S, 29-D, and 53-D also indicate upgradient, off-Site COC impacts, since these wells are not located downgradient of former AMD sources. These sources will continue to impact groundwater flowing beneath the Site for the foreseeable future.

As previously discussed, the highest COC concentrations beneath the Site are found in the former source area. However, because of the ongoing remediation efforts (including ISB), COC concentrations have decreased significantly and rapidly attenuate in the downgradient direction. This supports the recommendation of ISB and MNA as the remedial alternative proposed in the Revised FFS.

Concentration trends for A-, B1-, and B2-Zone monitoring wells are included in Appendix F. Primary COC concentrations detected in groundwater samples from most A-, B1-, and B2-Zone monitoring wells during the 2019 annual groundwater monitoring event were generally consistent with recent historical results, and with a long-term decreasing trend, which accelerated with the start of the full-scale ISB. Conclusions are summarized below:

- ✿ COC concentrations in samples collected in 2019 from many wells were low when compared to concentrations detected before ISB treatment began, indicating the successful application of the alternative groundwater cleanup strategy towards expediting groundwater cleanup.
- ✿ Groundwater beneath the Site is impacted by off-Site sources at levels above COC cleanup goals (i.e., maximum contaminant levels). As a result, it may not be feasible to meet cleanup goals at the end of active remediation.
- ✿ Downgradient COC concentrations are comparable to upgradient concentrations, indicating that natural attenuation processes enhanced with ISB are capable of mitigating impacts to groundwater from the former on-Site source area.

## 4. 2019 In Situ Bioremediation Program Summary

A detailed discussion of ISB operations and performance monitoring results are provided in separate quarterly (now semi-annual, as discussed below) reports submitted to EPA. The sections below are intended to summarize the operation and monitoring of the ISB system for 2019. Please refer to the performance monitoring reports for additional details.

### 4.1 OVERVIEW OF THE ISB SYSTEM

The ISB system was designed to increase the organic carbon content of the groundwater system, thereby enhancing anaerobic microbiological activity and promoting in situ biodegradation of COCs to environmentally benign end products (primarily chloride, ethene, and ethane). The primary components of the ISB system include:

- **Ex Situ COC Removal:** During ISB operation, groundwater pumped from the extraction well(s) in the former source area is treated with granular activated carbon to remove COCs before the groundwater is reinjected into the subsurface.
- **Substrate Delivery System:** Substrate delivery is performed by introducing a dissolved organic substrate to the subsurface and distributing it through a network of groundwater circulation wells. A nutrient-enriched 30 percent potassium lactate solution and a 60 percent sodium lactate solution were used in 2019; molasses and an emulsified vegetable oil solution were also used prior to 2019.
- **In Situ Biodegradation of COCs:** In situ treatment processes are promoted by adding substrate to the extracted groundwater using the delivery system described above. The addition of substrate to groundwater has proven to be an effective in situ remedial strategy at this Site, as demonstrated in the pilot test conducted from 2002 to 2004 (Geomatrix, 2004) and in the monitoring results to date.

Figure 11 shows the layout of the ISB system. Table 1 summarizes the construction details of the ISB program wells. Table 4 summarizes historical ISB operation details, including days operated, substrate type, quantity of substrate solution injected, and substrate delivery method.

### 4.2 ISB SYSTEM OPERATION IN 2019

The latest round of organic carbon substrate amendment and groundwater circulation was completed in the second quarter of 2019 (Q2 2019). The methods and results of the ISB system operation were provided in detail in the Q2 2019 ISB program update (Haley & Aldrich, 2019d).

Table 5 summarizes the operation of the ISB system for 2019, including which extraction and injection wells were used for the Q2 2019 ISB event. Two types of solutions were used as the substrate during the round of active ISB operation: a 30 percent (by weight) potassium lactate solution that includes nutrients such as phospholipids, soluble vegetable protein, and diammonium phosphate (Newman Zone QR™), as well as a 60 percent (by weight) sodium lactate solution.

Between 10 April and 29 May 2019, approximately 106,500 gallons of groundwater were extracted, amended with 339 gallons of substrate solution (596 kilograms of lactate ion in total) and reinjected into the treatment zone during the operation:

- **A Zone:** Between 10 April and 1 May 2019, approximately 64,800 gallons of groundwater was extracted, amended with 43 gallons of Newman Zone QR™ and 100 gallons of sodium lactate solution, and reinjected into the subsurface. In total, approximately 275 kilograms (approximately 606 pounds) of lactate ion were delivered to the A Zone, resulting in a calculated lactate ion concentration of 1.1 grams per liter (g/L).
- **B Zone:** Between 10 April and 29 May 2019, approximately 41,700 gallons of groundwater was extracted, amended with 96 gallons of Newman Zone QR™ and 100 gallons of sodium lactate solution, and reinjected into the subsurface. In total, approximately 321 kilograms (approximately 706 pounds) of lactate ion were delivered to the B Zone, resulting in a calculated lactate ion concentration of 2.0 g/L.

#### 4.3 ISB PERFORMANCE MONITORING

ISB performance monitoring events were conducted quarterly in February, June, and August 2019. The methods and results of the ISB performance monitoring events have been provided in separate reports to the EPA (Haley & Aldrich, 2019b; 2019d; 2019e). As previously discussed, in September 2019, EPA approved a reduction in sampling frequency to a semiannual basis; therefore, no ISB performance monitoring event was conducted in the fourth quarter of 2019. Future ISB performance monitoring events will be conducted semiannually in the first and third quarters of each year.

Table 6 provides a summary of the performance monitoring results for 2019. To help visualize the progress of reductive dechlorination in the ISB area, Appendix G includes concentration trends for chlorinated COCs and the molar fraction of ethene and ethane through the most recent ISB performance monitoring event in August 2019. The molar fraction of ethene and ethane in Table 6 represents the percent conversion of TCE to non-chlorinated environmentally benign end-products. Total organic carbon (TOC) and methane concentrations (in milligrams per liter) are also plotted in Appendix G to evaluate the distribution of amendment and non-target amendment utilization (i.e. methane production). As can be seen in the trend plots, concentrations have generally decreased from pre-ISB levels, and the proportion of ethene and ethane has increased.

Based on the results of the performance monitoring conducted in 2019, the ISB operation event in Q2 2019 continues to stimulate microbial degradation of COCs and TOC concentrations remain elevated in the vicinity of the injection wells. The mole fractions of ethene and ethane, while greater than before the latest ISB operation event, showed a decrease in the third quarter in most wells, suggesting that substrate is being rapidly depleted in the subsurface.

The performance monitoring results in 2019 support the conclusion that ongoing natural attenuation processes will continue to degrade COCs as they are transported in groundwater. Passive, intrinsic dechlorination processes continue to occur but may be limited in some areas by a depletion of substrate (determined by TOC concentrations) in the subsurface; additional substrate amendment events are therefore warranted.

#### 4.4 ISB ACTIVITIES PLANNED FOR 2020

Haley & Aldrich intends to operate the ISB system, including groundwater recirculation and substrate amendment, in the second quarter of 2020. As requested by EPA in their comments on the Q3 2019 ISB program update, Haley & Aldrich evaluated the use of alternative organic carbon substrates (such as a lecithin-based substrate) that may be longer-lasting in the subsurface.

After reviewing the alternatives, Haley & Aldrich has selected Provect-ERD CH4+™, produced by Provectus Environmental Products, as the substrate to be used during ISB operations in 2020. This is a water-soluble, lecithin-based substrate containing approximately 60 percent (by weight) fermentable organics. The substrate also has minor amounts of fast-release, mid-release, and long-term release hydrogen donors (glycerin, lactic acid, and dissolved fatty acids, respectively), micronutrients, and pH buffers. Haley & Aldrich has also selected to include a food-grade, statin-based supplement designed to inhibit the growth of methanogenic bacteria to reduce competition with *dehalococcoides*. A dissolved ferrous iron supplement is also included in this product with the intention of promoting the in situ formation of reactive solid-phase iron oxides and sulfides, which have been linked to abiotic reduction of chlorinated ethenes in aquifer systems.

Haley & Aldrich will also conduct semi-annual ISB performance monitoring events in the first and third quarters of 2020, as approved by EPA. The methods and results of the ISB operation event and the ISB performance monitoring events will be detailed in semiannual ISB program updates, to be submitted to EPA on 30 April and 30 October 2020.

## References

1. AMEC Environment & Infrastructure, Inc. 2011. Focused Feasibility Study, Former 901/902 Thompson Place, Sunnyvale, California. May.
2. Arcadis. 2001. Five-Year Review Report, Advanced Micro Devices, Inc. 901/902 Thompson Place, Sunnyvale, California. December.
3. California Department of Water Resources. 1967. Evaluation of Groundwater Resources, South Bay, Appendix A: Geology. Bulletin No. 118-1. August.
4. California Regional Water Quality Control Board, San Francisco Bay Region. 1991, Order No. 91-102, Site Cleanup Requirements and Revision of Order No. 89-56. June.
5. Clement Associates. 1990. Final Baseline Health Evaluation for the AMD/Signetics/TRW Site: prepared for the California Regional Water Quality Control Board. April.
6. Engineering Science. 1982. Fifth Progress Report of Groundwater and Soil Sampling Activities. October.
7. Engineering Science. 1986. Groundwater Investigation at AMD Buildings, 901/902 Facilities, Summary Report II. September.
8. Engineering Science. 1988. Evaluation of On-Site Soil Contamination, AMD Buildings 901/902. March.
9. Engineering Science. 1992. Completion of On-Site Soil Contamination, AMD Building 901. August.
10. Geomatrix Consultants, Inc. (Geomatrix). 2004. Enhanced In Situ Bioremediation Pilot Study Program, 901/902 Thompson Place Facility, Sunnyvale, California. February.
11. Geomatrix. 2005. Full Scale In Situ Bioremediation Work Plan, 901/902 Thompson Place Facility, Sunnyvale, California. February.
12. Geomatrix. 2007a. 2006 Annual Groundwater Monitoring Report, 901/902 Thompson Place, Sunnyvale, California. January.
13. Geomatrix. 2008. 2007 Annual Groundwater Monitoring Report, Former 901/902 Thompson Place, Sunnyvale, California. January.
14. Haley & Aldrich, Inc. (Haley & Aldrich). 2013. Revised Focused Feasibility Study, Former 901/902 Thompson Place, Sunnyvale, California. October.
15. Haley & Aldrich. 2018. Response to Comments on: In Situ Bioremediation Program, April through June 2018 Progress Update, Former 901/902 Thompson Place, Sunnyvale, California. August.

16. Haley & Aldrich. 2019a. Combined 2018 Annual Groundwater Monitoring Report and Annual In Situ Bioremediation Program Report. January.
17. Haley & Aldrich. 2019b. In Situ Bioremediation Program, January through March 2019 Progress Update, Former 901/902 Thompson Place, Sunnyvale, California. April.
18. Haley & Aldrich. 2019c. Response to Comments Memorandum: Combined 2018 Annual Groundwater Monitoring Report and Annual In Situ Bioremediation Report, Former 901/902 Thompson Place, Sunnyvale, California. May.
19. Haley & Aldrich. 2019d. In Situ Bioremediation Program, April through June 2019 Progress Update, Former 901/902 Thompson Place, Sunnyvale, California. July.
20. Haley & Aldrich. 2019e. In Situ Bioremediation Program, July through September 2019 Progress Update, Former 901/902 Thompson Place, Sunnyvale, California. October.
21. Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair. 1979. Flatland Deposits of the San Francisco Bay Region, California: Their Geology and Engineering Properties and Their Importance to Comprehensive Planning. USGS Professional Paper 943.
22. Parsons, E.S. 1996. Five-Year Review Report for the Advanced Micro Devices, Inc. 901/902 Thompson Place Facility. June.
23. United States Environmental Protection Agency (EPA). 1991. Record of Decision: Advanced Micro Devices #901/902, Signetics, TRW Microwave Combined Superfund Sites, Sunnyvale, California. September.
24. EPA. 2018. National Functional Guidelines for Organic Superfund Methods Data Review, EPA-540-R-2018-002. January.

\haleyaldrich.com\share\oak\_common\Advanced Micro Devices\1\_Formal 901-902 Thompspon Place\DELIVERABLES\Annual GWMR\2019\1\_text\2020\_0129\_HAI\_2019 AGWMR Thompson\_F.docx

## **TABLES**

TABLE 1

Page 1 of 2

**WELL CONSTRUCTION DETAILS**

FORMER 901/902 THOMPSON PLACE FACILITY  
SUNNYVALE, CALIFORNIA

Well ID	Installation Date	Location Coordinates <sup>1</sup>		Measuring Point Elevation <sup>1,2</sup> (feet NAVD 88)	Screen Interval (feet bgs)	Total Depth (feet bgs)	Borehole Diameter (inches)	Well Diameter (inches)						
		Latitude	Longitude											
<b>Annual Monitoring Wells</b>														
<b>A-Zone Wells</b>														
15-S	3/25/1982	37.3811676	-122.0095588	50.82	8 - 16	16	8	4						
22-S	4/5/1982	37.3830016	-122.0097448	46.37	11 - 16	16	8	4						
27-S	4/13/1982	37.3820514	-122.0097588	50.71	9 - 14	14	8	4						
28-S	4/14/1982	37.3829343	-122.0095214	47.88	10 - 16	16	8	4						
29-S	4/15/1982	37.3817013	-122.009235	50.10	11 - 16	16	8	4						
36-S	6/23/1982	37.3840505	-122.0088829	41.46	10 - 16	16	8	4						
37-S	6/23/1982	37.3840517	-122.0101822	42.06	9 - 15	15	8	4						
<b>B1-Zone Wells</b>														
27-D	4/13/1982	37.3820623	-122.0097589	50.59	21 - 31	31	8	4						
28-D	4/14/1982	37.3829311	-122.0095314	47.74	15 - 25	25	8	4						
29-D	4/15/1982	37.3816933	-122.0092343	50.17	21 - 31	31	8	4						
36-D	6/24/1982	37.3840373	-122.0089171	41.26	15 - 20	20	8	4						
52-D <sup>3</sup>	1989	37.3825718	-122.0092365	48.31	NA	37 (approx)	NA	NA						
53-D <sup>3</sup>	1989	37.3812277	-122.0097105	50.94	NA	39 (approx)	NA	NA						
<b>B2-Zone Wells</b>														
22-DD	4/6/1982	37.383013	-122.009745	46.45	43 - 53	53	8	4						
27-DD	6/8/1982	37.382038	-122.0097599	50.72	45 - 55	55	8	4						
36-DD	6/24/1982	37.3840511	-122.0088922	41.58	51.5 - 61.5	62	8	4						
<b>B3-Zone Wells</b>														
35-DDD	6/8/1982	37.3829613	-122.0097299	46.47	70 - 80	80	8	4						
<b>ISB Wells</b>														
<b>A-Zone Wells</b>														
16-S	4/2/1982	37.383028	-122.0094942	47.70	9 - 16	16	8	4						
X2A <sup>4</sup>	5/18/2005	37.3829821	-122.0096288	47.08	10.0 - 19.9	21.0	8.25	2						
23-S	4/5/1982	37.3829232	-122.009706	47.03	9.0 - 16.0	16	8	4						
DW-2	NA	37.3829037	-122.0095907	46.45	10.0 - 14.0	NA	NA	12						
28-MW	12/11/2002	37.3829478	-122.0095259	47.42	10.0 - 16.3	17.5	8.25	2						
ISB1AR <sup>4</sup>	2/28/2007	37.3828575	-122.0096236	NA	10.0 - 24.4	24.6	8.25	2						
ISB2AR <sup>4</sup>	3/1/2007	37.3828577	-122.0095845	50.42	15.1 - 19.6	22.5	8.25	2						
<b>B1-Zone Wells</b>														
DW-7	1992	37.3830608	-122.0095395	46.11	35 - 45	NA	NA	6						
X1B <sup>4</sup>	5/17/2005	37.3829772	-122.0095389	47.18	25.4 - 30.2	30.5	8.25	2						
X2B1 <sup>4</sup>	5/18/2005	37.3829824	-122.0096398	46.83	26.5 - 36.5	39.5	8.25	2						
DW-1	NA	37.3828903	-122.0095901	46.91	32 - 40	NA	NA	12						
23-D	4/5/1982	37.3829332	-122.009716	47.04	40 - 50	50	8	4						
PMW-1-1 <sup>4,5</sup>	10/3/2005	37.3829419	-122.009538	47.45	26.0 - 27.4	27.5	5.5	1.1						
PMW-1-2 <sup>4,5</sup>	10/3/2005	37.3829419	-122.009538	47.45	31.0 - 32.4	32.4	5.5	1.1						
PMW-1-3 <sup>4,5</sup>	10/3/2005	37.3829419	-122.009538	47.45	35.9 - 38.5	42	5.5	1.1						

TABLE 1

Page 2 of 2

**WELL CONSTRUCTION DETAILS**

FORMER 901/902 THOMPSON PLACE FACILITY  
SUNNYVALE, CALIFORNIA

Well ID	Installation Date	Location Coordinates <sup>1</sup>		Measuring Point Elevation <sup>1,2</sup> (feet NAVD 88)	Screen Interval (feet bgs)	Total Depth (feet bgs)	Borehole Diameter (inches)	Well Diameter (inches)						
		Latitude	Longitude											
<b>ISB Wells</b>														
<b>B1-Zone Wells</b>														
PMW-2-1 <sup>4,5</sup>	9/29/2005	37.382956	-122.0096339	47.26	26.7 - 28.1	28.1	5.5	1.1						
PMW-2-2 <sup>4,5</sup>	9/29/2005	37.382956	-122.0096339	47.26	36.7 - 38.1	38.2	5.5	1.1						
ISB2BR <sup>4,6</sup>	3/6/2007	37.3828761	-122.0095924	NA	31.4 - 39.6	46.33	8.25	2						
ISB3BR <sup>4</sup>	3/1/2007	37.3828598	-122.0095298	51.20	25.7 - 43.3	40.8	8.25	2						
<b>B2-Zone Wells</b>														
DW-8	NA	37.383061	-122.0096842	45.63	45 - 65	NA	NA	NA						
PMW-2-3 <sup>5</sup>	9/29/2005	37.382956	-122.0096339	47.26	45.5 - 48.2	50	5.5	1.1						
ISB1BR <sup>4</sup>	2/28/2007	37.3828588	-122.0096345	50.61	31.0 - 44.5	44.6	8.25	2						

**Notes:**

feet bgs = Feet below ground surface

feet NAVD88 = Elevation (in feet) relative to the North American Vertical Datum of 1988

ISB = In situ bioremediation

NA = Not available

1. Well locations were surveyed by Silicon Valley Land Surveying, Inc. (SVLS) on 16 November 2006. Wells were resurveyed by SVLS on 10 to 11 September 2007 after site redevelopment. Horizontal coordinates are referenced to the North American Datum of 1983.

2. Top of casing elevations for a subset of wells was altered during repairs made on 7 to 8 August 2007 in response to site redevelopment.

3. Logs for wells 52-D and 53-D are not available. The total depth of the well is based on tagged total depth during monitoring.

4. Wells X1B, X2A, X2B1, multi-level wells PMW-1 and PMW-2, ISB1AR, ISB1BR, ISB2AR, ISB2BR, and ISB3BR were installed for use in the ISB program.

5. The diameter of each PMW well is 1.1 inches. The diameter of each individual PMW well chamber is approximately 3/8 inch.

6. Well ISB2BR is angled at approximately 30 degrees from vertical running beneath the building. The true depth of the screened interval is 31.4 to 39.6 feet bgs.

**TABLE 2****GROUNDWATER ELEVATIONS, 8 OCTOBER 2019<sup>1</sup>**

FORMER 901/901 THOMPSON FACILITY

SUNNYVALE, CALIFORNIA

Well ID	Aquifer Zone Screened	Top of Casing Elevation (feet NAVD 88)	Depth to Groundwater (feet btoc)	Groundwater Elevation (feet NAVD 88)
15-S	A	50.82	8.56	42.26
16-S		47.70	10.30	37.40
22-S		46.37	8.22	38.15
23-S		47.03	8.83	38.20
27-S		50.71	10.23	40.48
28-S		47.88	9.79	38.09
29-S		50.10	9.07	41.03
36-S		41.46	6.09	35.37
37-S		42.06	6.28	35.78
DW-7	B1	46.11	7.02	39.09
23-D		47.04	6.35	40.69
27-D		50.59	9.69	40.90
28-D		47.74	9.57	38.17
29-D		50.17	9.10	41.07
36-D		41.26	5.86	35.40
52-D		48.31	8.91	39.40
53-D		50.94	6.99	43.95
22-DD	B2	46.45	5.77	40.68
27-DD		50.72	7.19	43.53
36-DD		41.58	4.78	36.80
35-DDD	B3	46.47	3.60	42.87

**Notes:**

feet btoc = Feet below top of casing

feet NAVD88 = Elevation (in feet) relative to the North American Vertical Datum of 1988

1. Water levels were measured by Blaine Tech Services, Inc., of San Jose, California.

TABLE 3

ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES, OCTOBER 2019<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Well ID	Aquifer Zone	Sampling Date	PCE	TCE	cDCE	tDCE	VC	1,1-DCE	1,1-DCA	1,1,1-TCA	Freon 113	1,2-DCB
15-S	A	10/17/2019	< 0.50	<b>4.6</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
16-S		10/17/2019	< 0.50	< 0.50	<b>4.1</b>	< 0.50	<b>27</b>	< 0.50	< 0.50	< 0.50	< 0.50	<b>6.7</b>
22-S		10/18/2019	< 0.50	<b>4.9</b>	<b>36</b>	<b>6.6</b>	<b>31</b>	< 0.50	< 0.50	< 0.50	< 0.50	<b>18</b>
23-S		10/17/2019	<b>1.2</b>	<b>43</b>	<b>52</b>	<b>4.3</b>	< 0.50	<b>1.0</b>	< 0.50	< 0.50	< 0.50	<b>14</b>
27-S		10/18/2019	< 5.0 / < 5.0	<b>35 / 34</b>	<b>290 / 290</b>	<b>14 / 15</b>	<b>15 / 16</b>	< 5.0 / < 5.0	< 5.0 / < 5.0	< 5.0 / < 5.0	< 5.0 / < 5.0	< 5.0 / < 5.0
28-S		10/18/2019	< 0.50	< 0.50	<b>4.8</b>	< 0.50	<b>44</b>	< 0.50	< 0.50	< 0.50	< 0.50	<b>6.5</b>
29-S		10/17/2019	< 0.50	<b>15</b>	<b>1.8</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
36-S		10/18/2019	<b>1.7</b>	<b>58</b>	<b>12</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
37-S		10/18/2019	<b>0.59</b>	<b>37</b>	<b>7.0</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<b>0.55</b>	< 0.50
DW-7		10/17/2019	< 0.50	<b>39</b>	<b>160</b>	<b>1.9</b>	<b>7.0</b>	<b>0.58</b>	< 0.50	< 0.50	<b>0.96</b>	< 0.50
23-D	B1	10/17/2019	< 2.5 / < 0.50 J	<b>240 / 290 J-</b>	<b>4.1 / 4.1 J-</b>	< 2.5 / < 0.50 J	< 2.5 / 2.5 J-	< 2.5 / < 0.50 J				
27-D		10/18/2019	<b>3.8 / 3.7</b>	<b>67 / 67</b>	<b>2.1 / 2.1</b>	< 0.50 / < 0.50	< 0.50 / < 0.50	< 0.50 / < 0.50	< 0.50 / < 0.50	< 0.50 / < 0.50	< 0.50 / < 0.50	< 0.50 / < 0.50
28-D		10/18/2019	< 0.50 J	< 0.50 R	<b>6.5 J-</b>	< 0.50 R	<b>44 J-</b>	< 0.50 J	< 0.50 J	< 0.50 J	< 0.50 J	<b>5.2 J-</b>
29-D		10/17/2019	<b>2.9</b>	<b>63</b>	<b>2.0</b>	< 0.50	< 0.50	<b>0.56</b>	< 0.50	<b>0.64</b>	<b>0.53</b>	< 0.50
36-D		10/17/2019	<b>1.4</b>	<b>43</b>	<b>21</b>	<b>1.1</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
52-D		10/17/2019	< 0.50	<b>22</b>	<b>0.71</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
53-D		10/17/2019	< 0.50	<b>6.9</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
22-DD	B2	10/18/2019	< 0.50	<b>150</b>	<b>10</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<b>1.2</b>	< 0.50
27-DD		10/18/2019	<b>0.76 J-</b>	<b>22 J-</b>	<b>7.6 J-</b>	<b>0.83 J-</b>	< 0.50 J	< 0.50 J	< 0.50 J	< 0.50 J	< 0.50 J	< 0.50 J
36-DD		10/18/2019	< 0.50	<b>1.0</b>	<b>12</b>	<b>1.1</b>	<b>1.7</b>	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
35-DDD	B3	10/17/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cleanup Goal <sup>3</sup>			<b>5.0</b>	<b>5.0</b>	<b>6.0</b>	<b>10</b>	<b>0.5</b>	<b>6.0</b>	<b>5.0</b>	<b>200</b>	<b>1,200</b>	<b>600</b>

## Notes:

< = Constituent not detected above the laboratory reporting limit shown  
 < 0.5 / < 0.5 = Indicates that a duplicate sample was collected

1,1,1-TCA = 1,1,1-Trichloroethane

1,1-DCA = 1,1-Dichloroethane

1,1-DCE = 1,1-Dichloroethene

1,2-DCB = 1,2-Dichlorobenzene

cDCE = cis-1,2-Dichloroethene

Freon 113 = 1,1,2-Trichloro-1,2,2-Trifluoromethane

J = Concentration is estimated

J- = Concentration is estimated, biased low

PCE = Tetrachloroethene

R = Concentration is rejected as unusable

TCE = Trichloroethene

tDCE = trans-1,2-Dichloroethene

VC = Vinyl chloride

1. Groundwater samples were collected by Blaine Tech Services, Inc., of San Jose, California, and analyzed by Eurofins TestAmerica of Pleasanton, California, for the EPA Method 8010 list with Freon 113 in accordance with EPA Method 8260B.

2. Only compounds listed in the Record of Decision are included in this table; for a full list of analytes and detected compounds, see laboratory analytical reports.

3. Cleanup Goal is the lower of the Federal and California Maximum Contaminant Levels (MCLs).

Concentrations reported in micrograms per liter ( $\mu\text{g/L}$ ).

Results in bold indicate the constituent was detected in the sample above the laboratory reporting limit.

**TABLE 4****HISTORICAL IN SITU BIOREMEDIATION SYSTEM SUBSTRATE AMENDMENT SUMMARY**

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

<b>ISB Operation Event Period and Days Operated<sup>1</sup></b>	<b>Substrate Type</b>	<b>Quantity of Substrate Solution Injected<sup>2</sup></b>	<b>Substrate Delivery Method</b>
December 2005-May 2008 (449 days)	Molasses	2,495 gallons	Extracted groundwater mixed in-line with substrate (added using a metering pump) and pumped into injection wells.
October 2011-February 2012 (114 days)	Molasses	275 gallons	Extracted groundwater mixed in-line with substrate (added using a metering pump) and pumped into injection wells.
November 2012-February 2013 (99 days)	Molasses	276 gallons	Extracted groundwater mixed in-line with substrate (added using a metering pump) and pumped into injection wells.
January-June 2014 (56 days)	60 percent sodium lactate solution	144 gallons	Substrate added directly into injection wells, followed by groundwater recirculation.
January-February 2016 (29 days)	Emulsified vegetable oil solution (nutrient-enriched 60 percent vegetable oil / 4 percent sodium lactate solution)	268 gallons	Mixed in bulk with extracted groundwater in aboveground storage tanks and pumped into injection wells.
May-June 2017 (27 days)	60 percent sodium lactate solution	165 gallons	Extracted groundwater mixed with substrate (added using a metering pump) in aboveground tanks and pumped into injection wells.
May-June 2018 (41 days)	Combination of 60 percent sodium lactate solution and nutrient-enriched 30 percent potassium lactate solution	202 gallons	Extracted groundwater mixed with substrate (added using a metering pump) in tanks and pumped into injection wells.
April-May 2019 (49 days)	Combination of 60 percent sodium lactate solution and nutrient-enriched 30 percent potassium lactate solution	339 gallons	Extracted groundwater mixed with substrate (added using a metering pump) in tanks and pumped into injection wells.

**Notes:**

ISB = In situ bioremediation

1. Days operated based on hours that groundwater circulation occurred with or without substrate amendment. The maximum duration is presented in this table for periods when the system operated longer in one zone than the other zone.

2. The substrate quantity includes the sum of quantities injected into the A Zone and B Zone.

**TABLE 5**  
**IN SITU BIOREMEDIATION OPERATIONAL SUMMARY – 2019**  
**FORMER 901/902 THOMPSON PLACE FACILITY**  
**SUNNYVALE, CALIFORNIA**

Period	Extraction Wells	Injection Wells	Operation Time (hours)	Average Flow Rate (gpm) <sup>1</sup>	Volume of Groundwater Injected (gallons)	Substrate Type	Substrate Volume Injected (gallons) <sup>2</sup>	Substrate Mass Injected (kilograms) <sup>3</sup>
<b>A Zone</b>								
4/10/19-4/22/19	28-MW, X2A, 16-S	ISB1AR, ISB2AR, DW-2	292	2.52	44,162	30% Potassium Lactate	32	27
						60% Sodium Lactate	50	119
4/22/19-4/30/19	16-S, X2A	ISB1AR, ISB2AR, DW-2	190	1.74	19,904	30% Potassium Lactate	11	9
						60% Sodium Lactate	50	119
4/30/19-5/1/19 <sup>4</sup>	--	ISB1AR, ISB2AR, DW-2	19	0.62	724	--	--	--
<b>B Zone</b>								
4/10/19-5/9/19	X1B, X2B1, DW-7	ISB1BR, ISB2BR, ISB3BR, DW-1	698	0.75	31,462	30% Potassium Lactate	25	21
						60% Sodium Lactate	60	143
5/9/19-5/17/19	X1B, X2B1	ISB1BR, ISB2BR, ISB3BR, DW-1	188	0.46	5,175	30% Potassium Lactate	36	31
						60% Sodium Lactate	40	95
5/17/19-5/24/19	DW-7	X1B, X2B1	168	0.45	4,496	30% Potassium Lactate	35	30
5/17/19-5/29/19 <sup>4</sup>	--	DW-1	124	0.08	577	--	--	--
<b>Subtotals</b>								
<b>A Zone</b>			501	2.15	64,790	30% Potassium Lactate	43	37
<b>B Zone</b>			1,177	0.59	41,710	60% Sodium Lactate	100	238
<b>Second Quarter 2019 Total</b>			--	2.74	106,500	30% Potassium Lactate	96	82
			--	2.74	106,500	60% Sodium Lactate	100	238
			--	2.74	106,500	--	339	596

**Notes:**

% = Percent

g/day = Grams substrate injected per day

gpm = Gallons per minute

1. The average flow rate shown is less than the instantaneous flow rates observed while the system was operating at maximum capacity (approximately 2.2 gpm into the A Zone and 2.0 gpm into the B Zone) due to the cyclical nature of the extraction pumps.

2. The substrate injected during this period included nutrient blend with potassium lactate (30 percent solution, 9.09 lb/gallon density, 20.8 percent lactate ion), and sodium lactate (60 percent solution, 11 lb/gallon density, 47.7 percent lactate ion), and was injected in-line with the treated water into the injection wells. Substrate volume injected is shown as volume of solution.

3. Substrate mass injected shown as mass of lactate ion, calculated as (gallons of substrate solution \* density of solution \* percent lactate ion \* 0.454 kilograms/pound)

4. Remaining volume of water in mixing tanks pumped into injection wells to drain mixing tanks after completing operations.

TABLE 6

ANALYTICAL RESULTS FOR ISB PROGRAM GROUNDWATER SAMPLES<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	Micrograms per liter ( $\mu\text{g/L}$ )								micromoles per liter ( $\mu\text{M}$ )	Percent (%)	$\mu\text{g/L}$	milligrams per liter ( $\text{mg/L}$ )
		TCE	cDCE	tDCE	1,1-DCE	VC	Ethene	Ethane	TVOC				
		EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	AM20GAX	AM20GAX	EPA 8260B				
<b>A-Zone Wells</b>													
16-S	02/06/2019	< 0.50	2.7	< 0.50	< 0.50	29	3.2	10	49	0.94	48%	7,500	3.3
	06/12/2019	< 0.50 J-	2.3 J-	0.80 J-	< 0.50 J	6.3 J-	8.6	4.0	27	0.57	77%	8,800	4.6
	08/16, 09/16/2019	< 0.50	5.1	0.6	< 0.50	56	2.0	4.4	85	1.17	19%	7,000	3.8
	10/17/2019	< 0.50	4.1	< 0.50	< 0.50	27	--	--	45	--	--	--	--
23-S	02/06/2019	37	52	4.5	0.81	3.2	0.22	0.12	114	0.94	1.3%	52	2.3
	06/12/2019	38	51	5.4	0.76	6.6	0.28	1.6	121	1.0	6.0%	1,400	2.1
	08/16, 09/16/2019	35	43	3.7	0.79	0.69	0.10	1.8	101	0.83	7.6%	660	2.2
	10/17/2019	43	52	4.3	1.0	< 0.50	--	--	116	--	--	--	--
28-MW	02/06/2019	< 0.50	5.1	< 0.50	< 0.50	47	7.0	5.0	70	1.2	34%	5,700	3.1
	06/12/2019	< 0.50	2.4	< 0.50	< 0.50	1.8	3.2	6.0	24	0.37	85%	16,000	7.4
	08/16/2019	< 0.50	3.0	< 0.50	< 0.50	15	2.9	8.7	39	0.66	59%	15,000	3.8
DW-2	02/06/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.036 J	0.011 J	0.0	0.0016	100%	1,100	1.8
	06/12/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.029 J	< 0.10	0.0	0.0010	100%	17,000	200
	08/16, 09/16/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.044 J	< 0.011	0.0	0.0016	100%	1,100	23
X2A	02/06/2019	< 5.0	53	< 5.0	< 5.0	720	82	9.3	805	15	21%	6,200	2.7
	06/12/2019	< 5.0	160	< 5.0	< 5.0	380	70	17	571	11	28%	8,800	8.0
	08/16/2019	< 5.0	130	< 5.0	< 5.0	1,100	73	12	1,267	22	14%	8,200	4.1
<b>B1-Zone Wells</b>													
23-D	02/06/2019	230 / 230 <sup>3</sup>	3.5 / 3.4	< 2.5 / < 2.5	< 2.5 / < 2.5	< 2.5 / < 2.5	0.034 J	0.0074 J	234	1.8	0.082%	0.26 J	< 1.0 / < 1.0
	06/12/2019	280 / 280	4.0 / 3.9	< 2.5 / < 2.5	< 2.5 / < 2.5	< 2.5 / < 2.5	0.032 J	< 0.10	287 / 287	2.2	0.052%	0.64	< 1.0 / < 1.0
	08/16/2019	300 / 300	3.9 / 3.7	< 2.5 / < 2.5	< 2.5 / < 2.5	< 2.5 / < 2.5	< 0.0080	< 0.011	304 / 304	2.3	0.0%	0.13 J	< 1.0 / < 1.0
	10/17/2019	240 / 290 J-	4.1 / 4.1 J-	< 2.5 / < 0.50 J	< 2.5 / < 0.50 J	< 2.5 / < 0.50 J	--	--	244 / 297	--	--	--	--
DW-1	02/06/2019	< 0.50	8.0	1.7	< 0.50	52	46	350	62	14	93%	19,000	8.1
	06/12/2019	2.2	9.3	< 0.50	< 0.50	3.8	0.77 J-	1.6 J-	15	0.25	32%	10,000 J-	2,000
	08/16, 09/16/2019	< 0.50	< 0.50	0.77	< 0.50	4.4	0.65	3.0	7.4	0.20	61%	14,000	520
DW-7	02/06/2019	60	130	1.1	0.54	1.5	0.017 J	0.065 J	194	1.8	0.15%	2.1	< 1.0
	06/12/2019	26	140	2.3	0.58	3.2	1.8	0.31	173	1.8	4.1%	300	< 1.0
	08/16/2019	41	140	20	< 0.50	6.8	0.17	0.11	208	2.1	0.5%	18	< 1.0
	10/17/2019	39	160	1.9	0.58	7.0	--	--	209	--	--	--	--
PMW-2-1	02/06/2019	< 50	5,200	< 50	< 50	430	170	20	5,630	67	10%	7,300	1.4
	06/12/2019	< 50	4,900	50	< 50	290	130	20	5,240	61	8.7%	8,600	1.9
	08/16/2019	< 50	3,100	< 50	< 50	450	63	16	3,550	42	6.6%	10,000	2.2
X1B	02/06/2019	< 10	450	< 10	< 10	98	1.2	3.9	548	6.4	2.7%	290	< 1.0
	06/12/2019	5.8	110	3.9	< 0.50	15	2.6 J-	0.57 J-	135	1.6	7.1%	8,000 J-	2,400
	08/16, 09/16/2019	< 0.50	340	7.8	< 0.50	48	18	1.7	403	5.1	14%	13,000	1,800
X2B1	02/06/2019	170	100	< 2.5	< 2.5	< 2.5	0.13	3.6	273	2.4	5.1%	220	< 1.0
	06/12/2019	8.6	130	< 2.5	< 2.5	6.9	2.1 J-	1.4 J-	146	1.6	7.4%	13,000 J-	2,000
	08/16, 09/16/2019	< 2.5	< 10	< 2.5	< 2.5	< 2.5	4.7	11	0	0.5	100%	13,000	270
<b>B2-Zone Wells</b>													
PMW-2-3	02/06/2019	250	49	< 5.0	< 5.0	8.3	1.2	0.043 J	307	2.6	1.7%	13	< 1.0
	06/12/2019	290	48	< 5.0	< 5.0	8.9	1.0	0.032 J	347	2.9	1.3%	9.4	< 1.0
	08/16/2019	200	75	2.9	< 1.3	72	1.9	0.073 J	358	3.5	2.0%	22	< 1.0

**TABLE 6****ANALYTICAL RESULTS FOR ISB PROGRAM GROUNDWATER SAMPLES<sup>1,2</sup>**

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Page 2 of 2

**Notes:**

&lt; = Compound not detected above indicated laboratory reporting limit

-- = Sample was not analyzed for the indicated compound.

1,1-DCE = 1,1-Dichloroethene

cDCE = cis-1,2-Dichloroethene

J = Associated numerical value is the approximate concentration of the analyte in the sample.

J- = Associated numerical value is the approximate concentration of the analyte in the sample, biased low.

TCE = Trichloroethene

tDCE = trans-1,2-Dichloroethene

TOC = Total organic carbon

TVOC = Total volatile organic compound

VC = Vinyl chloride

1. Samples were collected by Blaine Tech Services, Inc. of San Jose, California and submitted to Eurofins TestAmerica of Pleasanton, California, for volatile organic compound and TOC analyses. Ethene, ethane, and methane were analyzed by Pace Analytical Energy Services, LLC of Pittsburgh, Pennsylvania.

2. For clarity, this table presents the results for TCE and daughter products for the previous year of data. For a full list of analytes, please refer to the quarterly/semiannual in situ bioremediation progress updates.

3. Multiple values indicate primary/duplicate sample results.

## **FIGURES**

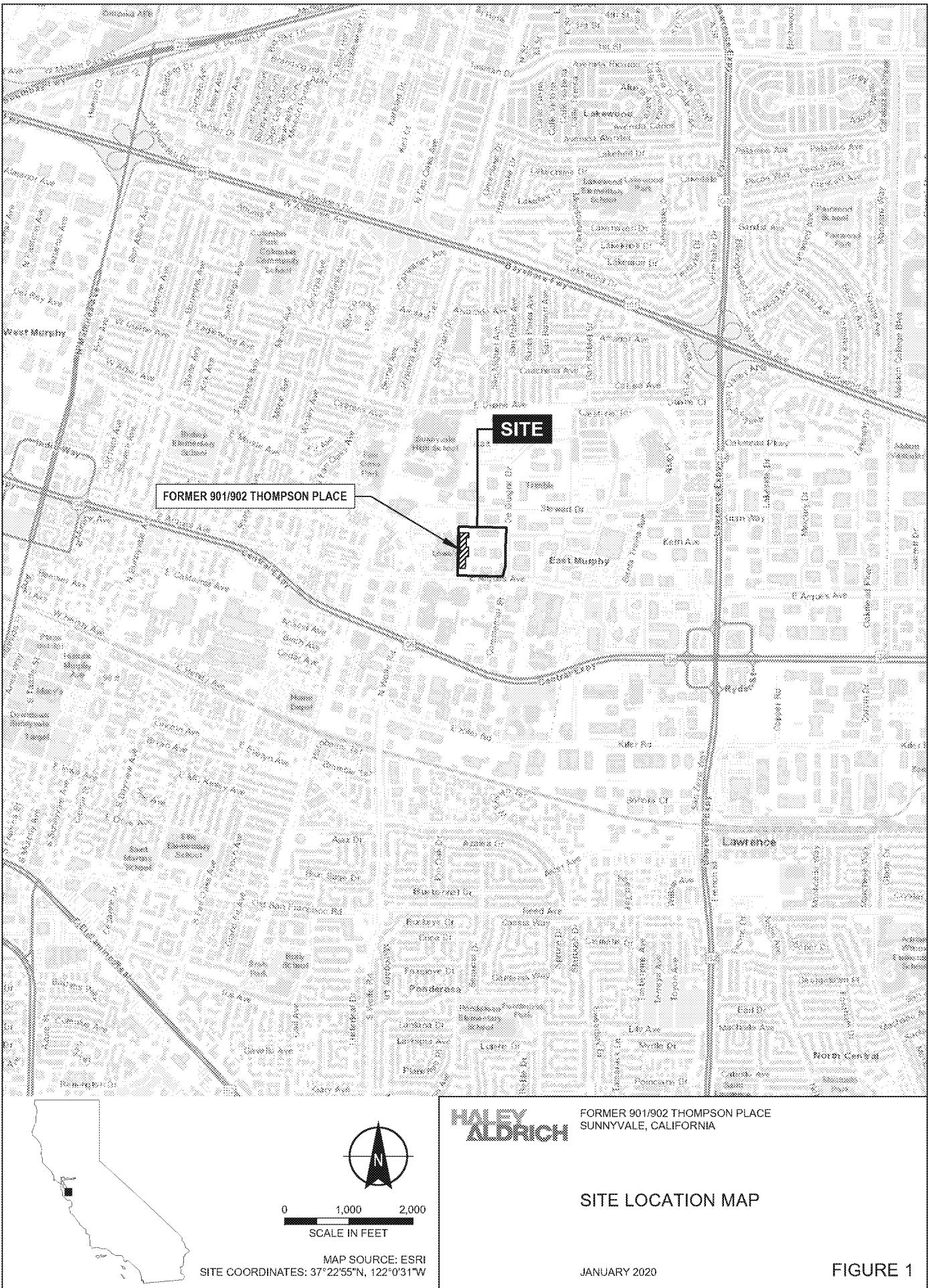
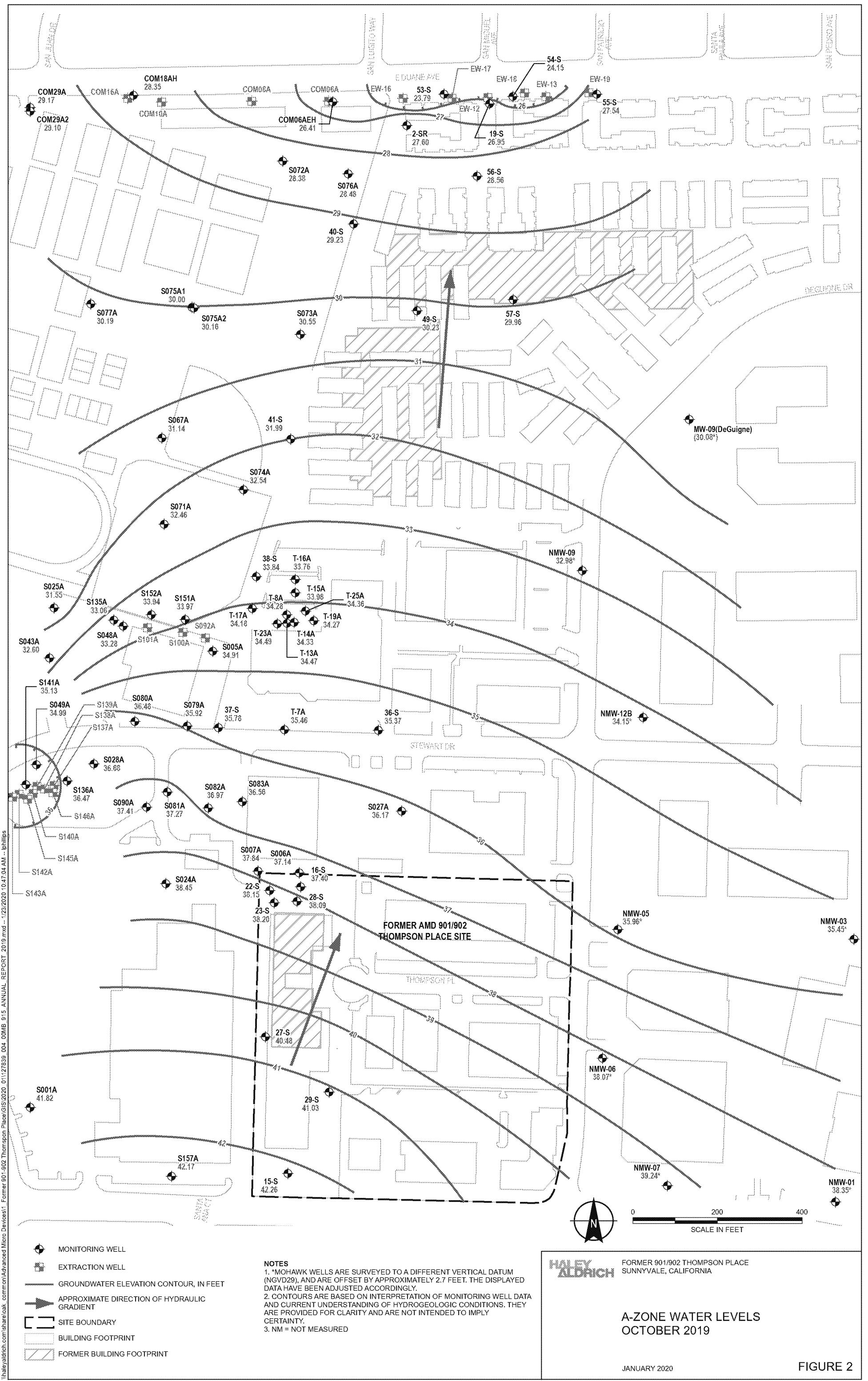
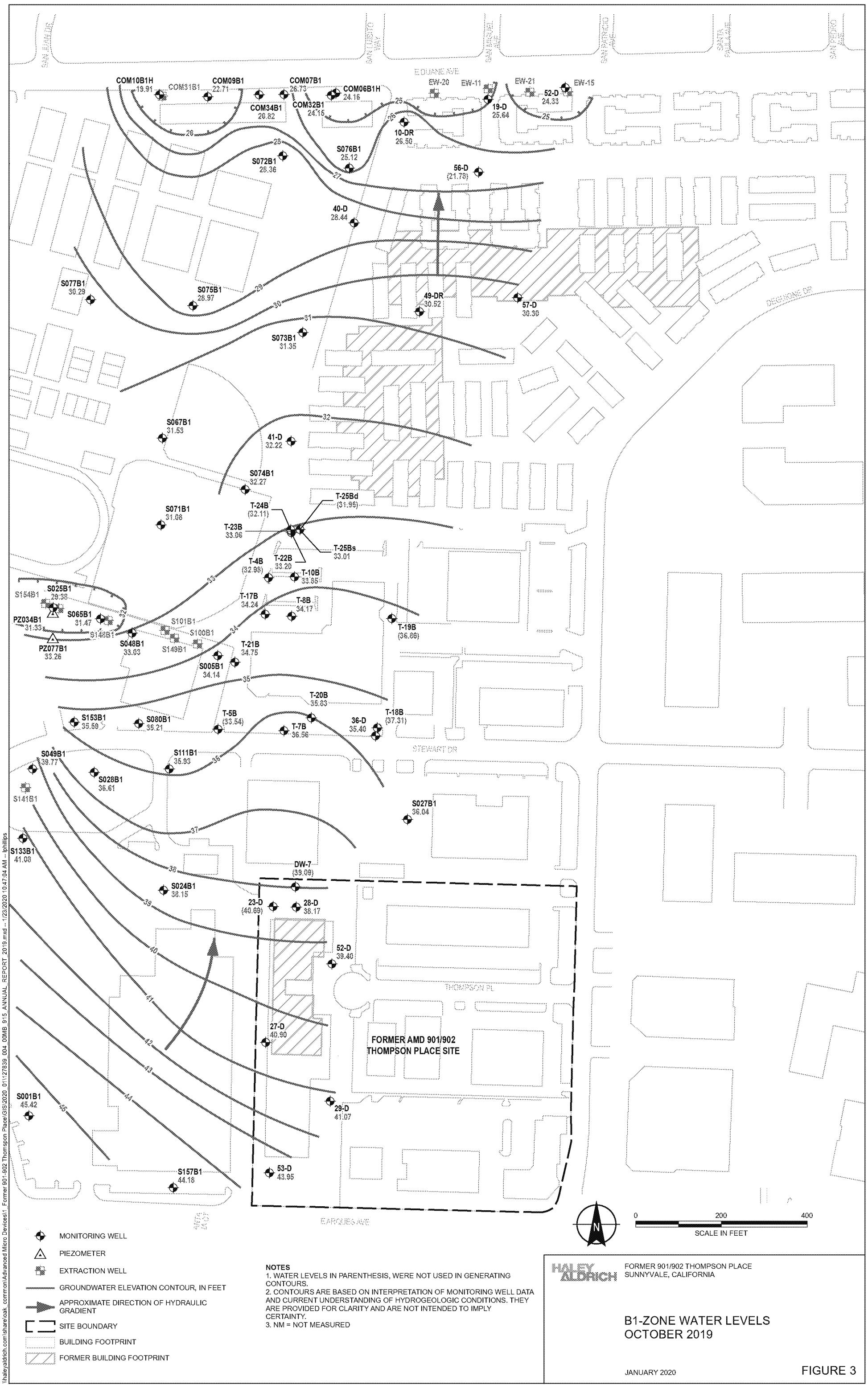
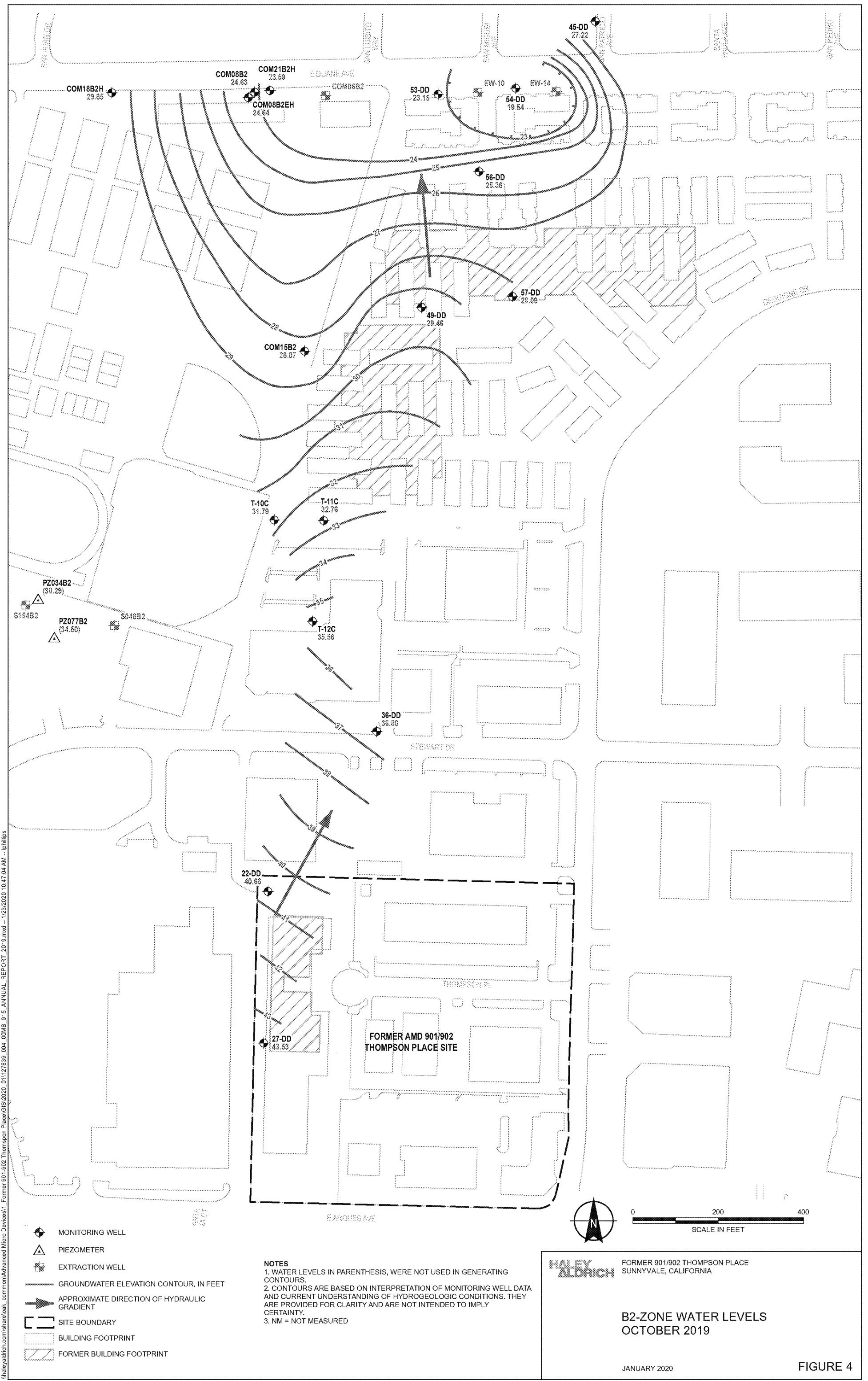
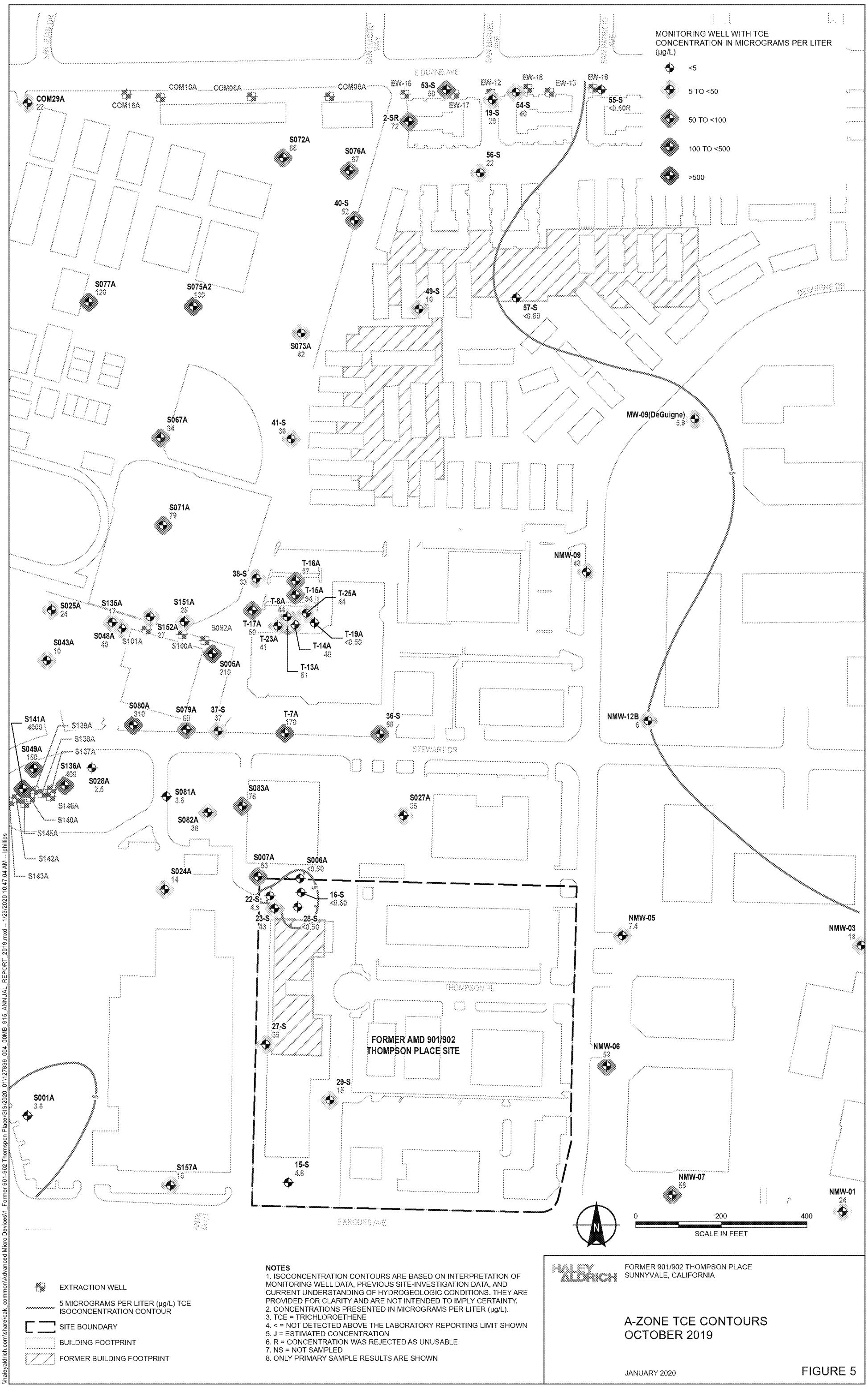


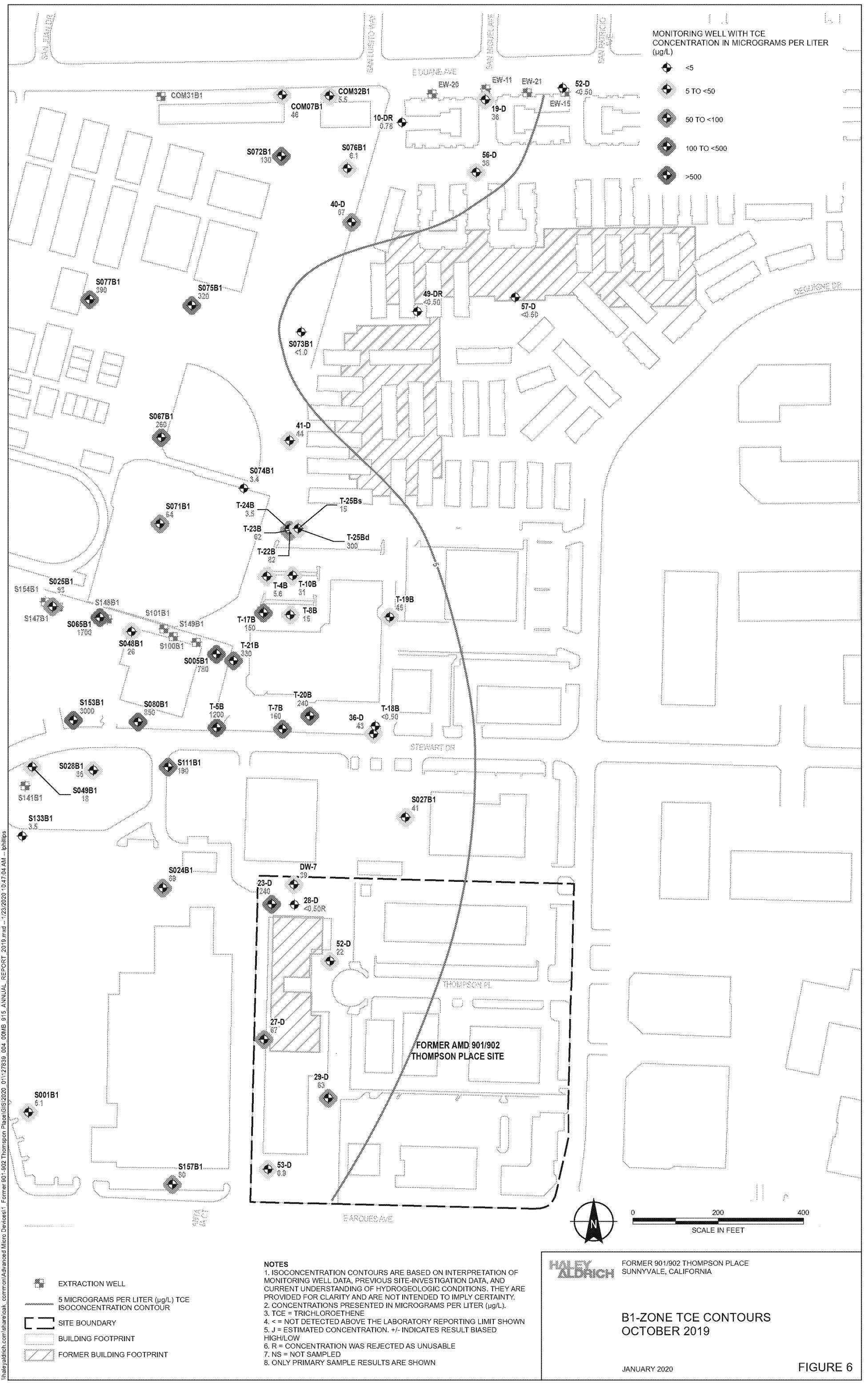
FIGURE 1

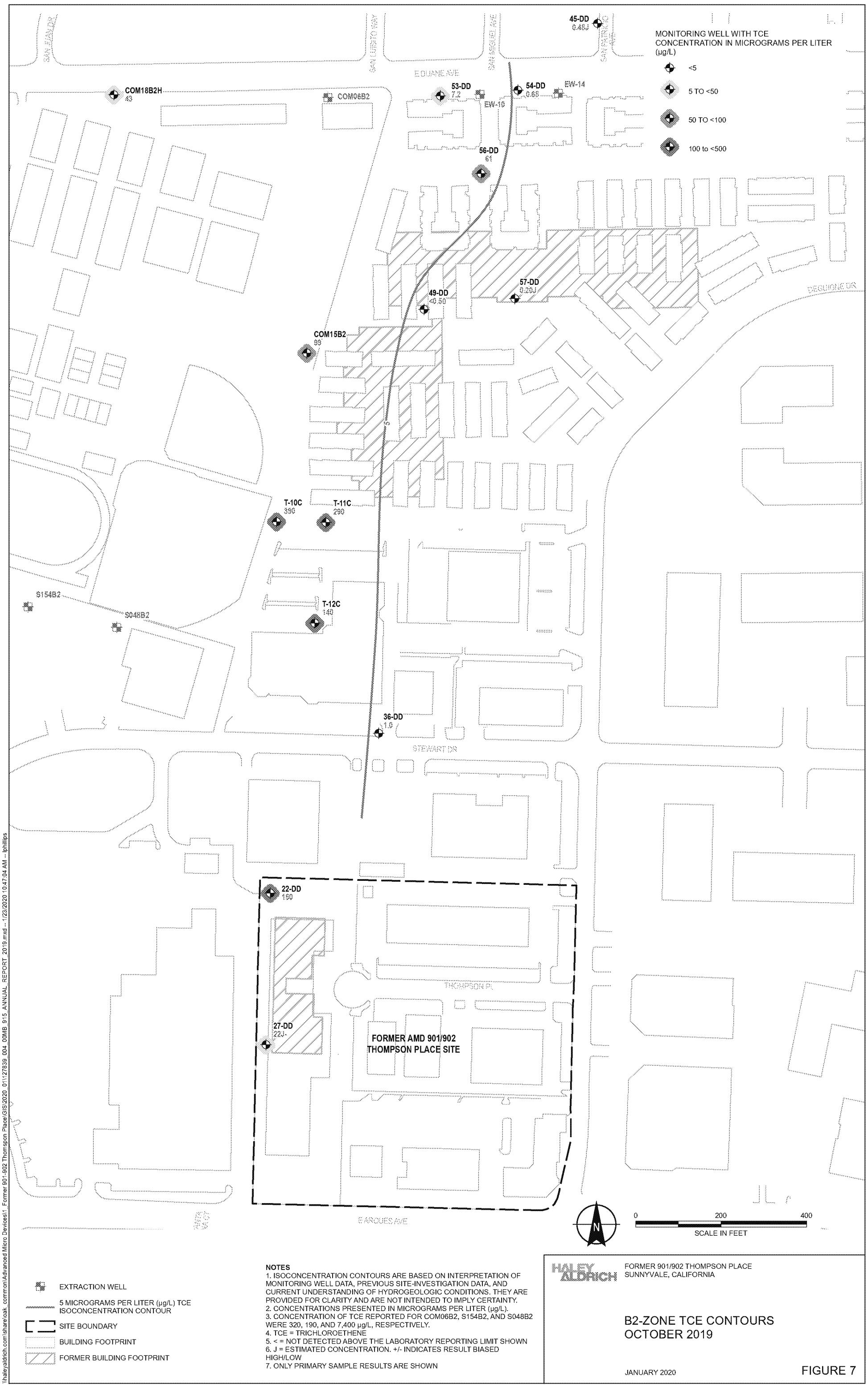


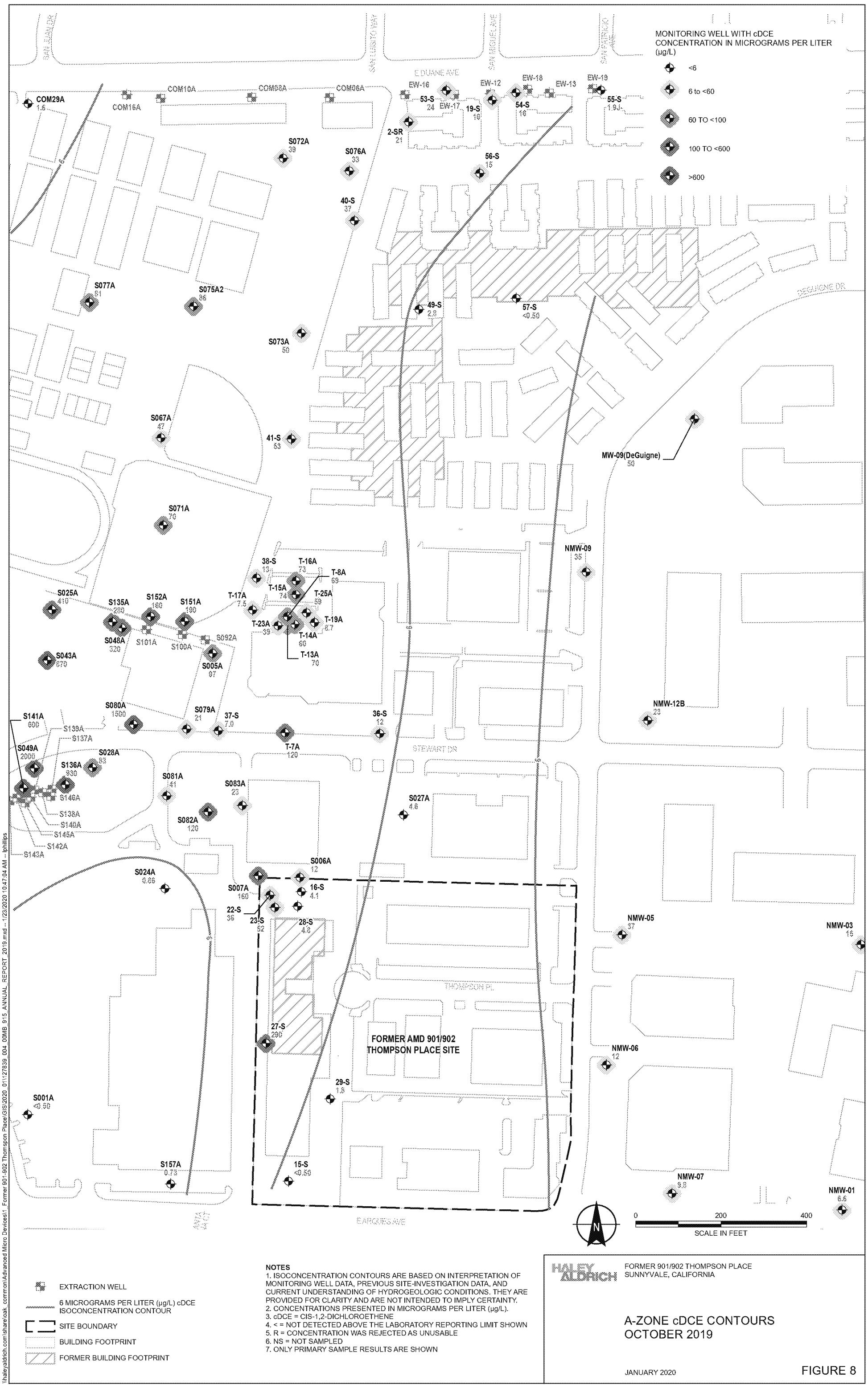


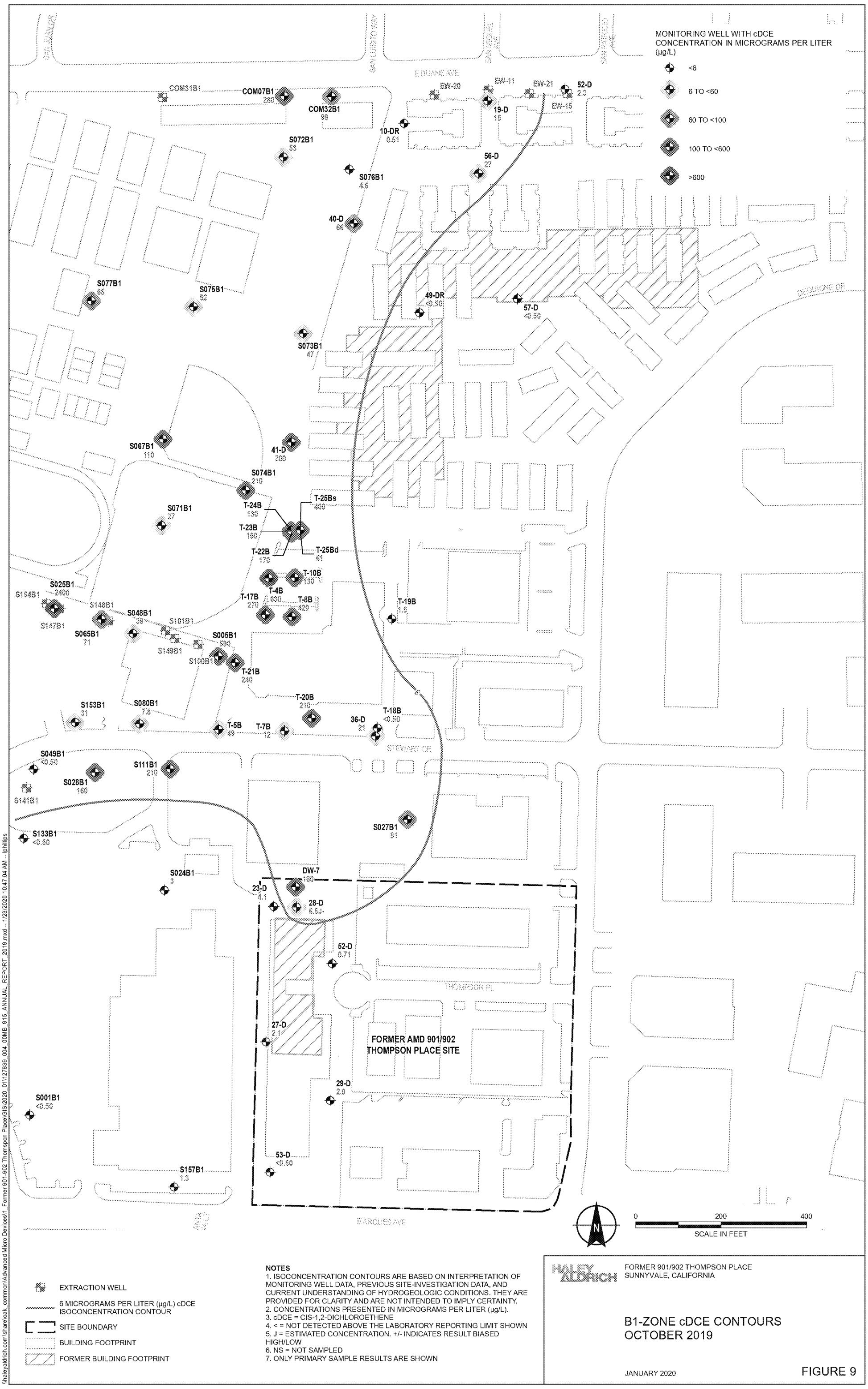


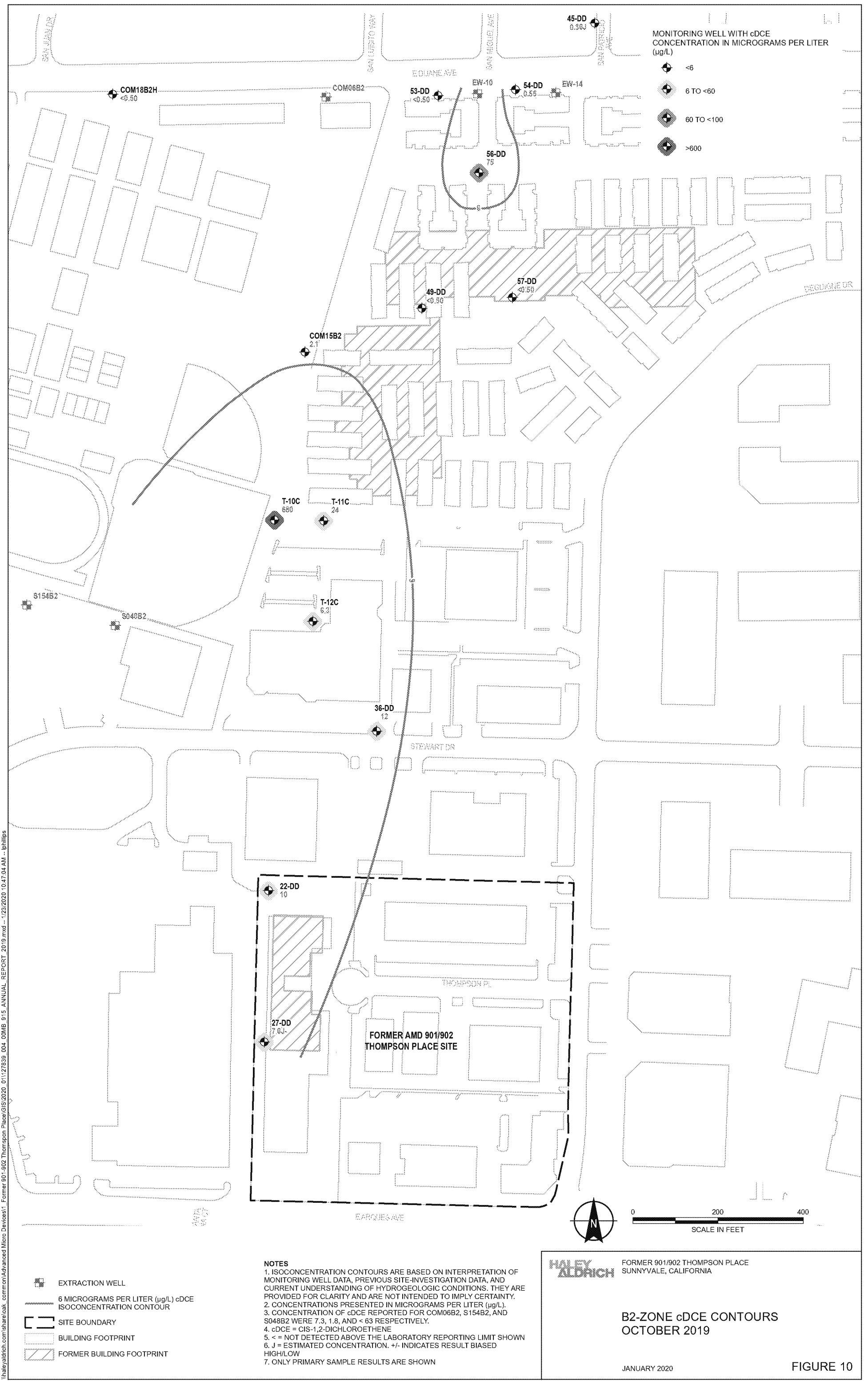


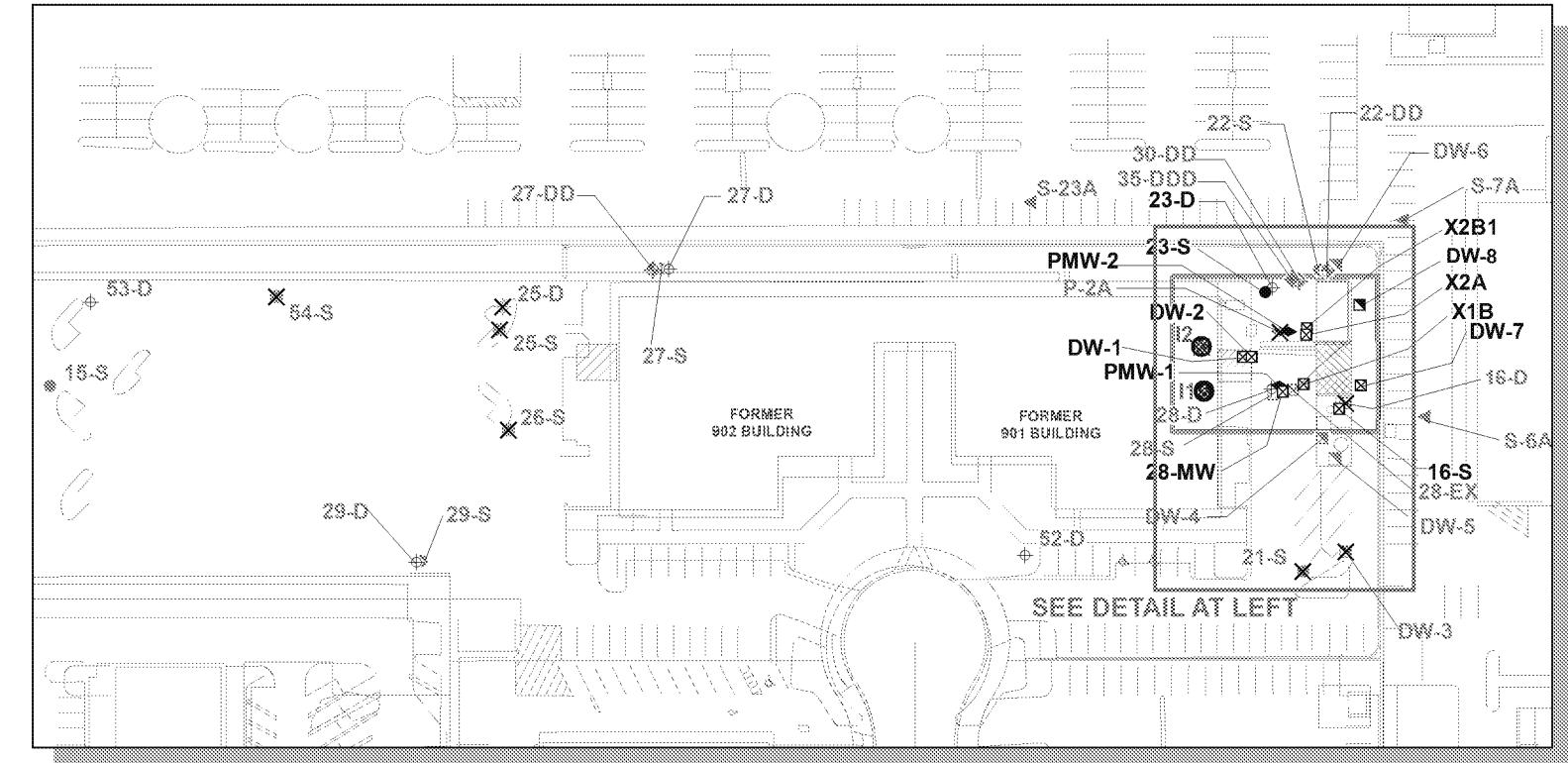
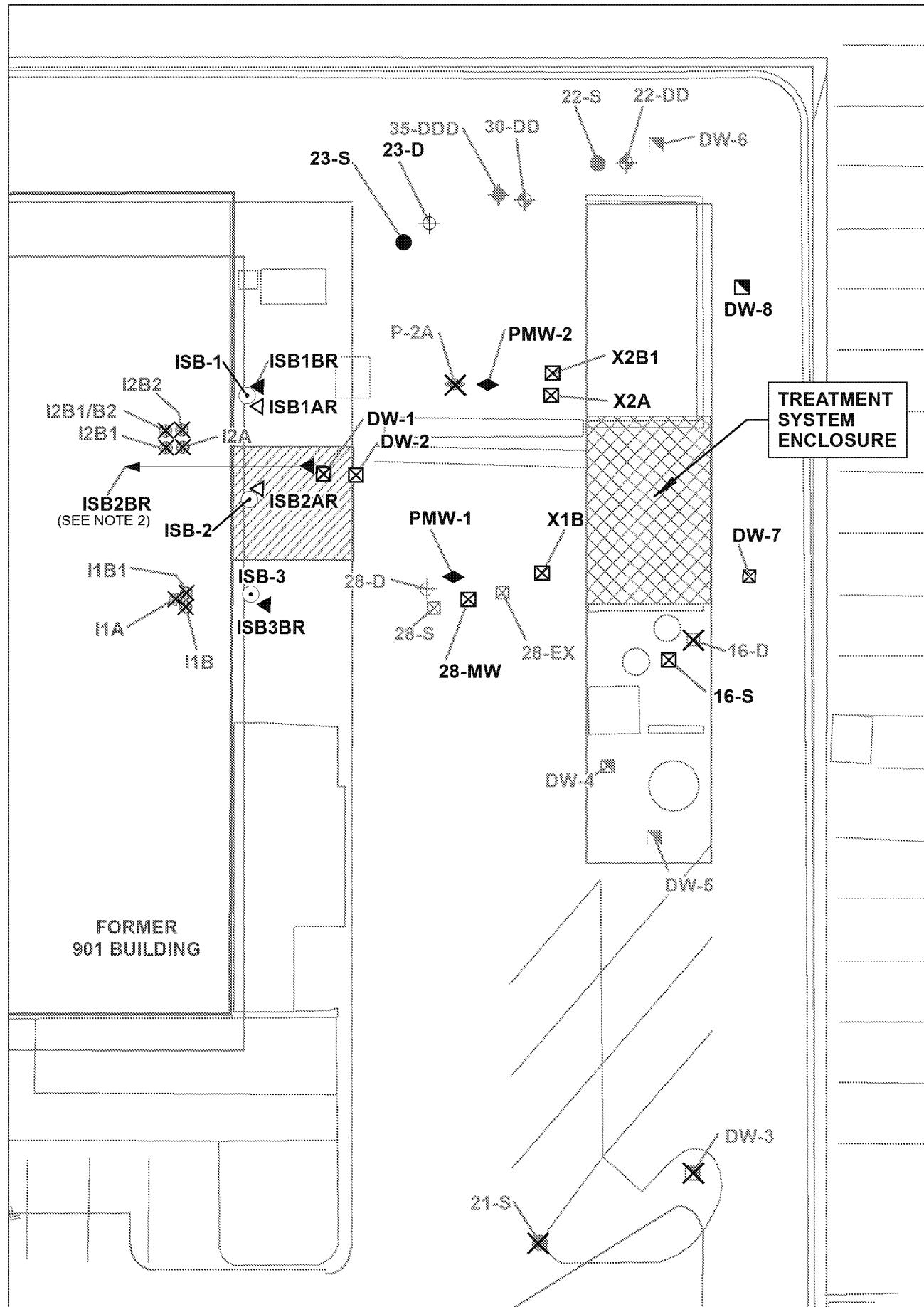












| LEGENDA

-   EXTRACTION WELL
  -   A-ZONE MONITORING WELL
  -   B1-ZONE MONITORING WELL
  -  B2-ZONE MONITORING WELL
  -  B3-ZONE MONITORING WELL
  -  A-ZONE INJECTION WELL
  -  B-ZONE INJECTION WELL
  -   PERFORMANCE MONITORING WELL  
(PMW-1, PMW-2, P-2A)
  -   IN SITU BIOREMEDIALATION INJECTION OR EXTRATION WELL
  -  SOIL BORING AND DEPTH-DISCRETE GROUNDWATER SAMPLING LOCATION
  - FORMER BUILDING BOUNDARIES
  -  FORMER POINT SOURCE LOCATION  
(NEUTRALIZATION AND STORAGE TANKS)

NCTM

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
  2. INJECTION WELL ISB2BR INSTALLED AT 30° FROM VERTICAL, WITH A BEARING TO THE SOUTH.
  3. BLACK SYMBOLS AND LABELS INDICATE WELL INCLUDED IN ISB PERFORMANCE MONITORING PROGRAM. REFER TO ISB MONITORING PROGRAM TABLE.
  4. BASE MAP SOURCE: AMD



0 100 200  
SCALE IN FEET

HALEY  
ALDRICH

FORMER 901/902 THOMPSON PLACE  
LUNNYVALE, CALIFORNIA

## AYOUT OF THE IN SITU BIOREMEDIATION PROGRAM

**APPENDIX A**

**Field Sampling Data Sheets**

## WELL GAUGING SHEET

Project # 191008Bk-1 Date 10/8/19 Client Haley & Aldrich

Site: 901 Thompson Place - Sunnyvale, CAPage: 1 OF 2

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
15-S	0907	4					8.56	16.55	TOC	
16-S	0842	4					10.30	17.07	TOC	
22-S	0811	4					8.32	14.87	TOC	
22-DD	0814	4					5.77	43.77	TOC	
23-S	0758	4					8.83	16.32	TOC	
23-D	0801	4					6.35	44.60	TOC	
27-S	0915	4					10.23	12.79	TOC	
27-D	0920	4					9.69	27.17	TOC	
27-DD	0911	4					7.19	52.89	TOC	
28-S	0711	4					9.79	16.14	TOC	
28-D	0715	4					9.57	23.83	TOC	
28-MW	0708	2					9.60	16.56	TOC	
29-S	0942	4					9.07	14.80	TOC	
29-D	0938	4					9.10	26.50	TOC	
35-DDD	1500	4					3.60	78.34	TOC	
36-S	0954	4					6.09	15.04	TOC	
36-D	0951	4					5.86	20.13	TOC	
36-DD	0949	4					4.78	55.10	TOC	
37-S	1000	4					6.28	13.06	TOC	
52-D	0856	4					8.91	38.42	TOC	

### WELL GAUGING SHEET

Project # 191008 Blk-1 Date 10/8/19 Client Haley & Aldrich

Site: 901 Thompson Place - Sunnyvale, CA

Page: 2 OF 2

## **WELL MONITORING DATA SHEET**

Project #: 191008-BIC 1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: SE	Start Date: 10/17/19
Well I.D.: 35-229	Well Diameter (inch): 4
Total Well Depth: 78.34	Depth to Water Pre: 3.40 Post: 16.42
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

<u>Well Diameter</u>	<u>Multiplier</u>
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47

Flow Rate: 3 GPM Pump Depth: 75'

Did well dewater? Yes  No  Amount actually evacuated: 145,8 gals.

Sampling Time: 14:49 Sampling Date: 10/17/19

Sample I.D.: 35-001 Laboratory: Test America

Analyzed for: SEE COC

Blank I.D.:    @ Duplicate I.D.:

Analyzed for: **SFE COC**

Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: je

## WELL MONITORING DATA SHEET

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site	
Sampler: TS	Start Date: 10-17-19	
Well I.D.: 15-S	Well Diameter (inch): 4	
Total Well Depth: 16.55	Depth to Water	Pre: 8.56 Post: 9.06
Depth to Free Product:	Thickness of Free Product (feet):	—
Referenced to: TOC	Flow Cell Type:	YSI 70 Plus

Purge Method:

**Electric Submersible**

Other: \_\_\_\_\_

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	radius <sup>2</sup> * 0.163

Sampling Method:

**Bailer**

Other: \_\_\_\_\_

Flow Rate:

26 PPM

Pump Depth:

15'

Time	Temp. (°C)	pH	Cond. (μS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals.)	Observations
0824	21.1	6.73	867307	145	0.28	241.1	5.20	
0826	21.3	6.77	423.3	69	0.82	143.3	10.40	
				13				
WELL Dewatered				13	9011015			
1337	20.8	7.59	13916	13	2.68	230.6	—	grab sample

Did well dewater?  Yes No Amount actually evacuated: 13 gals.

Sampling Time: 1340 Sampling Date: 10-17-19

Sample I.D.: 15-S Laboratory: Test America

Analyzed for: SEE COC

Blank I.D.: — @ Time Duplicate I.D.: —

Analyzed for: SEE COC

Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: TS

## **WELL MONITORING DATA SHEET**

Project #: 191008-BK	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: 10-17-19
Well I.D.: 53-D	Well Diameter (inch): 6.59 4
Total Well Depth: 36.90	Depth to Water Pre: 6.99 Post: 10.11
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI BD PLUS

### Purge Method:

## Electric Submersible

Other:

#### **Sampling Method:**

## Bailer

Other:

Flow Rate: ? GPM

Pump Depth:

36

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Did well dewater? Yes  No

Amount actually evacuated: 565 gals.

Sampling Time: 09 20

Sampling Date: 10-17-19

Sample I.D.:

53-D

Laboratory: **Test America**

Analyzed for: **SEE COC**

MS/MSP collected

Blank I.D.:

1 @

### Duplicate I.D.:

Analyzed for:

**SEE COC**

Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: TS

## **WELL MONITORING DATA SHEET**

Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: TS

## **WELL MONITORING DATA SHEET**

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: 10-17-19
Well I.D.: 29-D	Well Diameter (inch): 4
Total Well Depth: 26.50	Depth to Water Pre: 9.10 Post: 10.60
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 300 Pump Depth: 25.5

~~TS~~ 200 26PM

Pump Depth: 25.5

Did well dewater? Yes  No  Amount actually evacuated: 54 gals.

Sampling Time: 1118 Sampling Date: 10-17-19

Sample I.D.: 79-D Laboratory: Test America

Laboratory. Test America

Analyzed for: SEE COC

Blank I.D.:         Duplicate I.D.:

Time

Analyzed for: SEE COC

Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: TS

## **WELL MONITORING DATA SHEET**

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: 10-17-19
Well I.D.: 52-17	Well Diameter (inch): 4
Total Well Depth: 38.42	Depth to Water Pre: 8.91 Post: 9.10
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible**

Other:

Sampling Method: Bailer

Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 7 6PM

Pump Depth: 19'

Did well dewater? Yes  No

Amount actually evacuated: 57 gals.

Sampling Time: 1308

Sampling Date: 10-17-19

Sample I.D.: 52 - D

Laboratory: **Test America**

Analyzed for: SEE COC

Blank I.D.:

1 @ Time

#### Duplicate LDs:

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: B

## WELL MONITORING DATA SHEET

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: 10-16-14
Well I.D.: 27-D	Well Diameter (inch): 4
Total Well Depth: 27.17	Depth to Water Pre: 9.69 Post: 10.88
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible**

Other:

Sampling Method: Bailer

Other:

<u>Well Diameter</u>	<u>Multiplier</u>
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 26PM

Pump Depth: 26

Did well dewater? Yes

No

Amount actually evacuated: 44

gals.

Sampling Time: 0808

Sampling Date: 10-18-19

Sample I.D.: 27-0

Laboratory: **Test America**

Analyzed for: SEE COC

Blank I.D.:

— 1 —

### Duplicate I.D.:

@0813

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: BS

# WELL MONITORING DATA SHEET

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: 10-16-19
Well I.D.: 36-DD	Well Diameter (inch): 4
Total Well Depth: 55.10	Depth to Water Pre: 4.78 Post: 13.93
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 2 GPM Pump Depth: 54'

Did well dewater? Yes No Amount actually evacuated: 43 gals.

Sampling Time: 1225 Sampling Date: 10-18-19

Sample I.D.: 36-DD      Laboratory: **Test America**

Analyzed for: SEE COC

Blank I.D.: 1 @ Duplicate I.D.:

Analyzed for: SEE COC

Pictures taken of sample containers to verify NO Headspace/Bubbles Tech Initials: TS

## **WELL MONITORING DATA SHEET**

Project #: 141008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: 10-17-19
Well I.D.: 36-D	Well Diameter (inch): 4
Total Well Depth: 20-13	Depth to Water Pre: 5-86 Post: 6-13
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 26PM Pump Depth: 16'

Did well dewater? Yes  No

Amount actually evacuated: 27 gals.

Sampling Time: 1450

Sampling Date: 10-17-19

Sample I.D.: 36-D

Laboratory: **Test America**

Analyzed for: SEE COC

Blank I.D.:

108

Duplicate ID:

卷之三

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: T

## **WELL MONITORING DATA SHEET**

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: <del>10-18-19</del> 10-18-19
Well I.D.: 36-S	Well Diameter (inch): 6.093 4
Total Well Depth: 15.04	Depth to Water Pre: 6.09 Post: 6.77
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

<u>Well Diameter</u>	<u>Multiplier</u>
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 26PM Pump Depth: 14

Did well dewater? Yes  No

Amount actually evacuated: 18 gals.

Sampling Time: 1008

Sampling Date: 10-18-19

Sample I.D.:

36-5

Laboratory: **Test America**

Analyzed for: SEE COC

Blank I.D.:

Duplicate I.D.

iii

### Analyzed for:

Duplicate I.D.:

Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: TS

## **WELL MONITORING DATA SHEET**

Project #: 1910D8-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: TS	Start Date: 10-18-14
Well I.D.: 37-5	Well Diameter (inch): 4
Total Well Depth: 13.06	Depth to Water Pre: 6.28 Post: 6.37
Depth to Free Product: —	Thickness of Free Product (feet): <u>—</u>
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

<u>Well Diameter</u>	<u>Multiplier</u>
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 26PM Pump Depth: 12'

Did well dewater? Yes  No Amount actually evacuated: 13.5 gals.

Sampling Time: 1045 Sampling Date: 10-18-14

Sample I.D.: 37-S Laboratory: **Test America**

Analyzed for: SEE COC

Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: BS

# WELL MONITORING DATA SHEET

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JE	Start Date: 10/18/19
Well I.D.: 28-D	Well Diameter (inch): 4
Total Well Depth: 23.83	Depth to Water Pre: 9.65 Post: 10.118
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	radius <sup>2</sup> * 0.163

Flow Rate: 2.5 gpm Pump Depth: 20'

Did well dewater? Yes ( No ) Amount actually evacuated: 27.6 gals.

Sampling Time: 09:11 Sampling Date: 10/15/19

Sample I.D.: 28-10 Laboratory: Test America

1-1-12 SEE GOG

Analyzed for: SEE COC

Blank I.D.: \_\_\_\_\_ Duplicate I.D.: \_\_\_\_\_

Analyzed for: **SFE COC**

Finalized for: SEE CCC

## Tech Initials: ടെ

## **WELL MONITORING DATA SHEET**

Project #:	191008-BK1	Client:	Haley & Aldrich @ 901 Thompson Place Site
Sampler:	TS	Start Date:	10-16-19
Well I.D.:	27-DD	Well Diameter (inch):	4
Total Well Depth:	52.89	Depth to Water	Pre: 7.19 Post: 7.22
Depth to Free Product:	—	Thickness of Free Product (feet):	—
Referenced to:	TOC	Flow Cell Type:	YSI Pro Plus

## Purge Method: Electric Submersible

Other:

Sampling Method: Bailer

Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

### Flow Rate:

Pump Depth:

51

Other

radius<sup>2</sup> \* 0.163

Did well dewater? Yes  No

Amount actually evacuated: 35 gals.

Sampling Time: 1123

Sampling Date: 10-18-19

Sample I.D.:

27-DD

Laboratory: **Test America**

Analyzed for: SEE COC

Blank I.D.:

**Duplicate I.D.:**

10 of 10

11

### Analyzed for:

[View all posts by admin](#) | [View all posts in category](#)



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: TS

# **WELL MONITORING DATA SHEET**

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: 3E	Start Date: 10/18/19
Well I.D.: 2B-S	Well Diameter (inch): 4
Total Well Depth: 16.1' "	Depth to Water Pre: 10.21 Post: 10.95
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer**

Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16 $w=3.2$
3"	0.37
4"	0.65 $50\% = 11.40$
6"	1.47
Other	radius <sup>2</sup> * 0.163

Flow Rate: 225 ppm

Pump Depth: 14'

Did well dewater? Yes  No

Amount actually evacuated: 11.7 gals.

Sampling Time: 0945

Sampling Date: 10/18/18

Sample I.D.: 78-5

Laboratory: **Test America**

Analyzed for: SEE COC

**Blank I.D.:**

Time

---

Duplicate LD:

Analyzed for: **SEE COC**



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: AS

## **WELL MONITORING DATA SHEET**

Project #: 141008-BL1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JE	Start Date: 10/18/12
Well I.D.: 22-5	Well Diameter (inch): 4
Total Well Depth: 14.87	Depth to Water Pre: 8.30 Post: 9.96
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI pro plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 2 gpm Pump Depth: 14'

Did well dewater?  Yes  No      Amount actually evacuated: 4.3 gals.

Sampling Time: 10:45 Sampling Date: 10/18/19

Sample I.D.: 22-5 Laboratory: Test America

See GOG  
Easierly! TESTAMERICA

Analyzed for: SEE COC

Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Duplicate I.D.: \_\_\_\_\_

Analyzed for: SEE COC

Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: JG

## **WELL MONITORING DATA SHEET**

Project #: 191008 - BIL 1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JE	Start Date: 10/18/19
Well I.D.: <del>23-D</del> 22-DD	Well Diameter (inch): 4
Total Well Depth: 43.77	Depth to Water Pre: 5.73 Post: 6.18
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: **Electric Submersible** Other:

Sampling Method: **Bailer** Other:

Well Diameter	Multiplier
1"	0.04
2"	0.16
3"	0.37
4"	0.65
6"	1.47
Other	$\text{radius}^2 * 0.163$

Flow Rate: 2.75 gpm Pump Depth: 17.0'

Did well dewater? Yes  No  Amount actually evacuated: 74.1 gals.

Sampling Time: 1145 Sampling Date: 10/13/19

Sample I.D.: 82-32 Laboratory: Test America

Analyzed for: SEE COC

Blank I.D.: EB-2 Duplicate I.D.: /

Analyzed for: SEE COC

 Pictures taken of sample containers to verify NO Headspace/Bubbles Tech Initials:

## WELL MONITORING DATA SHEET

Project #: 191008-BN-1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JE	Start Date: 10/18/19
Well I.D.: 27-S	Well Diameter (inch): 4"
Total Well Depth: 12.79	Depth to Water Pre: 10.36 Post: 10.40
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro plus

Purge Method: <input checked="" type="checkbox"/> Electric Submersible	Disposable Diver Other: _____	Well Diameter Multiplier
Sampling Method: Bailer	Other: _____	1" 0.04
		2" 0.16
		3" 0.37
		4" 0.65
		5" 1.00
		6" 1.47
Flow Rate: —	Pump Depth: —	Other radius <sup>2</sup> * 0.163

Time	Temp. (°C)	pH	Cond. (μS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals.)	Observations
2759	18.2	6.72	1203	96	3.52	104	1.4	Brown
	# WELL	DEWATERED	AFTER	1.6 GRADS				
1128	18.7	7.48	1249	340	1.19	29.8	—	Grab sample brown

Did well dewater?  Yes No Amount actually evacuated: 1.4 gals.

Sampling Time: 1133 Sampling Date: 10/18/19

Sample I.D.: 27-S Laboratory: Test America

Analyzed for: SEE COC

Blank I.D.: — @ Time Duplicate I.D.: 2-D @ 1138

Analyzed for: SEE COC

Pictures taken of sample containers to verify NO Headspace/Bubbles Tech Initials: TS

# LOW FLOW WELL MONITORING DATA SHEET

Project #: 191008-BK1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JE	Start Date: 10/17/19
Well I.D.: 16-5	Well Diameter (inch): 4
Total Well Depth: 17.07	Depth to Water Pre: 10.28 Post: +2.57 10.28
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI pro Plus

Purge Method: Bladder Pump

Sampling Method: Dedicated tubing Screen Interval: 9-110'

Start Purge: 0925 Flow Rate: 200 mL/min

Pump Depth: 12'

Time	Temp. (°C)	pH	Cond. (µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (mL)	DTW / Observations
0928	17.1	6.65	1615	26	1.9n	75.4	600	10.28 clear
0931	16.9	6.67	1637	1n	2.14	71.0	1200	10.28
0934	17.0	6.69	1632	11.	2.82	67.7	1800	10.28
0937	17.1	6.72	1633	10	3.60	64.1	2400	10.28
0940	17.1	6.75	1635	9	3.60	61.5	3000	10.28
0943	17.2	6.75	1634	10	3.53	60.5	3600	10.28 ↓

Did well dewater? Yes (No) Amount actually evacuated: 3600 ml

Sampling Time: 0948 Sampling Date: 10/17/19

Sample I.D.: 16-5 Laboratory: Test America / PACE

Analyzed for: SEE COC

Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time Duplicate I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: JE

# LOW FLOW WELL MONITORING DATA SHEET

Project #: 191008-BLW	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JF	Start Date: 10/17/19
Well I.D.: 23-5	Well Diameter (inch): 4
Total Well Depth: 16.32	Depth to Water Pre: 8.82 Post: 8.95
Depth to Free Product:	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro plus

Purge Method: Bladder Pump

Sampling Method: Dedicated tubing

Screen Interval: 9'-16'

Start Purge: 1030

Flow Rate: 200 ml/min

Pump Depth: 12'

Time	Temp. (°C)	pH	Cond. (µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (mL)	DTW / Observations
1033	17.6	6.88	1234	5	1.41	50.5	600	8.95 clear
1034	17.7	6.77	1238	5	1.30	49.4	1200	8.95 clear
1039	17.7	6.67	1239	3	1.44	49.9	1800	8.95 clear
1042	17.7	6.57	1240	3	1.49	50.8	2400	8.95
1045	17.7	6.49	1242	3	2.14	52.1	3000	8.95
1048	17.7	6.45	1243	2	2.06	53.1	3600	8.95
1051	17.7	6.40	1243	2	2.05	53.3	4200	8.95

Did well dewater? Yes  No

Amount actually evacuated: 4200 ml

Sampling Time: 1054

Sampling Date: 10/17/19

Sample I.D.: 23-5

Laboratory: Test America / PACE

Analyzed for: SEE COC

Blank I.D.: — @ Time

Duplicate I.D.: — @ Time

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: JE

# LOW FLOW WELL MONITORING DATA SHEET

Project #: 191003-B4	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JE	Start Date: 10/17/19
Well I.D.: DW-7	Well Diameter (inch): 6
Total Well Depth: 44.34	Depth to Water Pre: 6.83 Post: 7.00
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

Purge Method: Bladder Pump

Sampling Method: Dedicated tubing

Screen Interval: 35-45'

Start Purge: 0815

Flow Rate: 200 ml/min

Pump Depth: 40'

Time	Temp. (°C)	pH	Cond. (µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (mL)	DTW / Observations
0818	14.5	6.90	995	103	1.27	121.3	600	7.00 / clarity
0821	15.0	7.12	972	63	1.06	97.0	1200	7.00 / getting clearer
0824	15.2	7.20	974	52	0.87	83.7	1800	7.00 / clear
0827	15.9	7.32	973	51	0.72	77.6	2400	7.00
0830	16.3	7.35	972	48	0.64	73.3	3000	7.00
0833	16.3	7.38	975	45	0.68	69.0	3600	7.00
0834	16.1	7.39	975	47	0.75	67.0	4200	7.00

Did well dewater? Yes  No

Amount actually evacuated: 4200 ml

Sampling Time: 0841

Sampling Date: 10/17/19

Sample I.D.: DW-7

Laboratory: Test America / PACE

Analyzed for: SEE COC

Blank I.D.: TB-1

@

Time 0715

Duplicate I.D.: —

@

Time

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: JE

## **LOW FLOW WELL MONITORING DATA SHEET**

Project #: 191008-BK 1	Client: Haley & Aldrich @ 901 Thompson Place Site
Sampler: JE	Start Date: 10-17-19
Well I.D.: 23-D	Well Diameter (inch): 4
Total Well Depth: 44.60	Depth to Water Pre: 6.30 Post: 6.48
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: TOC	Flow Cell Type: YSI Pro Plus

**Purge Method:** Blaster purg

**Sampling Method:** Dedicated tubing

Screen Interval: 40-50

Start Purge: 11:46

Flow Rate:  $20 \text{ ml/min}$

Pump Depth: 42.5

Did well dewater? Yes  No

Amount actually evacuated: 3000 ml

Sampling Time: 1201

Sampling Date: 10/17/19

Sample I.D.: 23-1

Laboratory: **Test America / PACE**

Analyzed for: SEE COC

Blank I.D.: @

—  
—  
—

---

**Duplicate I.D.:**

Time

1206

Analyzed for: SEE COC



Pictures taken of sample containers to verify NO Headspace/Bubbles

Tech Initials: 

# TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME: Haley & Aldrich @ 901 Thompson Place - Sunnyvale, CA					PROJECT NUMBER: 191008-BK 1		
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. (°C)	Standard Lot#/Exp. Date /
YSI Pro plus	19B103U74	10/17/19 0720	pH 7 10 4  Cond 3900 ms	7.07 10.01 7.93  3679 ms	✓  —	21.3  20.6	S8525 April 2020 S8745 May 2020 S8524 April 2020  S9533 6/10/21
			ORP 234	235.5	✓	21.1	082919 10/29/20
			DO 100%	100	✓	19.2	—
HACH Turbidimeter	16090C052635	10/17/19 1400	>5 NTU	1.0	✓	—	—
YSI Pro plus	19B103U74	10/18/19	pH 7 10 4  Cond 3900 ms	100  6.97 9.90 7.90  3904	✓  ✓	19.2  19.9  19.0	—  S8525 April 2020 S8745 May 2020 S8524 April 2020  S9533 6/10/21
			ORP 237	237.2	✓	19.7	082919 10/29/20
HACH Turbidimeter	16090C052635	10/18/19 1400	>5 NTU	0.9	✓	—	—

# TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME: Haley & Aldrich @ 901 Thompson Place - Sunnyvale, CA					PROJECT NUMBER: 191008-BK1		
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. (°C)	Standard Lot# / Exp. Date /
YSI ProPlus	19B103478	10-17-19 0715	pH: 4.00 7.00 10.00  cond: 3400 ORP: 239.1  DO: 100%	4.00 7.00 10.01  3401 239.1  100%	Yes  Yes Yes  Yes	20.1  20.5 19.5  18.2	—
Hach Turbidimeter	16080051637	10-17-19 0725	NTU: 10 20 100 200 300	10 20 100 200	Yes	—	—
YSI ProPlus	19B103478	10-18-19 0712	pH: 4.00 7.00 10.00  cond: 3400 <sub>us</sub>  ORP: 238.1	4.00 7.02 10.00  3400 238.1	Yes  Yes	19.8  20.6	—
			DO: 100%		Yes	20.3	—
Hach Turbidimeter	16080051637	10-18-19 0720	NTU: 10 20 100 200 300	10 20 100 200	Yes	—	—
YSI ProPlus bump test	19B103478	10-18-19 1300	pH: 4.00 7.00 10.00  cond: 3400  ORP: 236.4 DO: 100%	4.00 7.02 10.00  3405 236.4 100%	Yes	20.6  20.6	—

## WELLHEAD INSPECTION CHECKLIST

Page: 1 of 2

Date: 10/08/19

Client: Haley & Aldrich

Project Name/Site Address: 901 Thompson Place - Sunnyvale, CA

Job #: 91008BK-1

Technician(s): BK

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Debris Removed From Wellbox	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
15-S	✓							
16-S	✓							
22-S	✓							
22-DD	✓							
23-S							✓	
23-D							✓	
27-S	✓							
27-D	✓							
27-DD	✓							
28-S	✓							
28-D	✓							
28-MW							✓	
29-S	✓							
29-D								
35-DDD							✓	
36-S	✓							
36-D	✓							
36-DD	✓							
37-S							✓	
52-D	✓							

NOTES: 18-MW 1/2 BOLTS; 23-D LID RESTING HIGH. 23-S

LID RESTING HIGH DUE TO CAP. 35-DDD 1/3 BOLTS, LID AND TOP OF  
SKIRT REMOVABLE TOGETHER; 37-S 37-S 1/2 STRIPPED TABS;

## **WELLHEAD INSPECTION CHECKLIST**

Page: 2 of 2

Date: 10/08/19

Client: Haley & Aldrich

Project Name/Site Address: **901 Thompson Place - Sunnyvale, CA**

Job #: 1910083K-1

Technician(s): BK

NOTES: XIB 1/2 BROKEN TABS; PHW1 1/2 STRIPPED TABS; PHW2 1/2 STRIPPED TABS;

**APPENDIX B**

**Historical Groundwater Elevation Data**

APPENDIX B

## HISTORICAL GROUNDWATER ELEVATION DATA

FORMER 901/901 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Well ID	Jun-87	Aug-87	Nov-87	Mar-88	Jun-88	Sep-88	Dec-88	Mar-89	Jun-89	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Oct-91	Jan-92	Apr-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Aug-93	
<b>A Aquifer</b>																											
14-S	34.66	34.64	34.21	33.56	33.40	33.17	32.25	31.22	30.32	29.57	DRY	DRY	28.80	DRY	DRY	29.03	28.52	DRY	28.57	29.82	30.45	30.71	30.56	33.17	33.34	NM	
15-S	36.66	49.06	36.22	35.52	35.26	34.96	34.59	34.16	33.50	31.90	DRY	DRY	32.25	DRY	33.94	32.43	DRY	34.12	34.60	NM							
16-S	32.81	33.00	32.79	31.27	DRY	30.00	29.51	30.23	28.66	DRY	DRY	29.76	DRY	DRY	29.18	29.85	30.16	DRY	DRY	31.41	29.62	34.27	28.76	29.48	29.14	28.96	
17-S	32.55	32.48	32.22	31.45	31.19	30.67	30.09	29.67	28.85	DRY	29.00	28.91	29.12	29.42	31.42	31.20	NM										
21-S	32.57	32.52	32.36	31.35	30.75	30.00	29.50	29.45	28.77	25.94	25.44	25.34	DRY	DRY	DRY	DRY	25.98	25.99	DRY	26.66	26.77	29.29	27.97	29.34	29.49	29.19	
22-S	32.74	32.86	32.87	32.35	31.33	30.76	30.15	29.95	DRY	29.28	31.60	30.53	30.91	30.38	30.24												
23-S	32.83	32.94	32.89	31.68	31.19	30.52	29.89	29.84	28.72	DRY	28.51	DRY	DRY	DRY	29.06	31.49	30.25	30.67	30.26	30.10							
25-S	35.53	46.43*	35.28	34.23	34.21	33.63	33.11	32.74	32.36	DRY	33.08	34.20	NM														
26-S	35.12	36.25	34.80	33.99	33.45	32.98	32.49	32.20	DRY	32.54	32.55	NM															
27-S	35.06	35.06	34.81	34.22	33.81	33.36	32.82	32.39	DRY	32.63	32.78	32.61															
28-S	32.77	32.88	32.79	31.60	31.10	30.49	29.90	29.90	29.63	DRY	DRY	DRY	DRY	DRY	29.44	DRY	DRY	DRY	DRY	DRY	DRY	31.57	29.92	30.30	30.03	29.87	
29-S	35.03	34.94	34.69	34.22	33.79	33.37	32.74	32.30	31.43	DRY	32.30	32.31	NM														
36-S	30.93	30.13	30.07	29.72	28.97	28.22	28.06	27.90	27.34	28.43	DRY	DRY	25.54	27.25	DRY	26.30	25.32	DRY	27.54	30.06	27.42	27.95	27.81	29.64	28.51	NM	
37-S	30.16	29.95	30.25	29.26	28.27	27.36	27.26	27.10	DRY	27.56	DRY	30.24	27.93	NM													
38-S	27.70	26.58	26.97	27.11	26.15	25.41	25.26	25.23	24.91	24.56	DRY	IA	DRY	DRY	24.85	25.85	DRY	NM									
54-S	NI	30.73	29.48	29.48	29.97	29.74	29.19	30.46	29.85	29.37	IA	31.43	31.33	32.12	29.50	33.55	33.66	NM									
<b>B1 Aquifer</b>																											
DW-7	NI																										
16-D	31.25	30.74	30.62	29.81	29.13	27.77	28.03	27.38	24.86	24.00	22.40	27.70	24.98	24.37	23.19	26.74	25.75	18.93	20.15	26.47	26.85	26.35	18.48	20.27	22.45	21.36	
23-D	30.07	29.14	28.37	29.14	27.07	26.17	25.90	24.85	15.97	16.43	15.63	14.80	14.25	18.94	17.07	17.53	16.73	16.35	21.10	26.11	25.67	19.92	16.74	20.27	23.38	23.67	
25-D	35.69	35.79	35.72	34.79	34.20	33.73	33.12	32.73	32.09	29.76	28.51	28.46	29.37	29.20	28.66	29.92	29.33	28.83	28.82	31.07	30.82	31.71	30.98	33.03	33.12	NM	
27-D	35.26	35.27	34.98	34.34	33.95	33.48	32.87	32.47	31.87	29.85	28.59	28.52	29.05	28.89	28.38	29.62	28.92	28.5	28.52	30.81	30.58	31.46	30.70	32.72	32.83	32.64	
28-D	32.74	32.85	32.74	34.56	31.09	30.46	29.88	29.86	28.94	26.44	25.29	27.98	27.40	26.09	28.41	28.77	28.51	25.68	25.84	28.08	28.90	31.60	29.91	30.30	30.04	29.88	
29-D	35.23	35.18	34.82	34.09	33.69	33.15	32.56	32.14	31.33	29.66	28.33	28.32	28.83	28.56	28.05	29.32	28.59	28.15	28.30	30.51	30.22	31.13	30.38	32.46	32.56	NM	
36-D	30.94	30.20	30.16	29.90	29.10	28.34	28.09	28.04	27.44	27.61	26.34	25.36	25.18	25.36	24.23	25.55	24.92	24.63	24.86	28.61	26.59	27.68	27.47	29.20	28.19	NM	
52-D	NI	32.53	24.52	24.65	24.80	24.83	24.53	25.79	25.01	24.3	24.77	28.39	27.98	28.71	26.56	28.56	29.16	28.89									
53-D	NI	35.21	30.01	29.97	30.13	30.10	29.61	31.11	30.31	29.75	29.92	32.06	31.99	32.36	31.61	33.84	34.13	NM									
<b>B2 Aquifer</b>																											
22-DD	30.31	29.37	28.46	32.49	29.18	28.97	27.58	28.70	20.84	15.87	15.22	14.88	14.60	19.81	16.47	16.91	17.20	16.29	20.95	26.14	24.74	21.61	17.21	20.01	23.33	23.62	
27-DD	32.67	33.04	32.49	32.26	31.18	29.82	29.38	28.83	29.99	26.61	25.53	25.58	25.32	25.99	25.63	26.76	25.91	25.23	26.27	29.24	28.57	28.88	26.77	29.57	29.68	29.71	
30-DD	30.13	29.21	28.30	29.17	26.97	26.09	25.79	24.75	15.61	15.95	15.25	14.35	14.05	20.54	16.81	17.28	16.53	16.15	20.67	26.09	25.66	19.74	16.57	20.13	23.44	23.65	
36-DD	29.99	28.95	28.97	28.80	27.77	26.80	26.48	26.26	25.49	26.23	25.48	23.42	23.78	24.75	23.27	24.83	23.99	23.61	24.52	28.59	26.01	26.88	26.21	28.45	27.89	NM	
<b>B3 Aquifer</b>																											
35-DDD	30.01	29.75	28.66	29.75	27.69	25.78	25.43	25.13	24.01	23.90	23.88	23.38	23.34	24.28	23.96	25.16	24.26	23.51	24.69	27.71	26.81	27.73	24.69	27.51	27.34	NM	

### Notes:

<b>DRY</b>	DRY = No water in well
<b>IA</b>	IA = Well inaccessible
<b>NA</b>	NA = Not available
<b>NI</b>	NI = Not installed
<b>NM</b>	NM = Not measured

\* Water level measurement is believed to be inaccurate.

Groundwater elevations are reported in feet above mean sea level (USGS Datum) through 2004 and feet NAVD88 since 2005.

Top of casing elevations were resurveyed in October 1997 and again in December 2005. Groundwater elevations measured during subsequent monitoring events were calculated using resurveyed elevations.

Well 16-D was decommissioned in September 2019.

HALEY & ALDRICH INC

**APPENDIX B****HISTORICAL GROUNDWATER ELEVATION DATA**

FORMER 901/901 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Well ID	Sep-93	Oct-93	Jan-94	Apr-94	Jul-94	Oct-94	Jan-95	Apr-95	Jul-95	Oct-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98	Oct-98	Oct-99	Oct-00	Oct-01	Oct-02	Oct-03	Oct-04	Oct-05	Nov-06	Oct-07	Oct-08	Oct-09	Oct-10
<b>A Aquifer</b>																												
14-S	NM	33.02	32.49	32.75	33.07	33.55	33.24	35.17	34.65	34.50	34.90	34.34	34.95	34.54	35.87	35.37	35.14	35.18	35.25	35.21	35.44	35.28	38.25	38.33	38.22	NM	NM	NM
15-S	NM	34.11	34.28	34.41	34.77	35.02	35.15	37.75	38.14	37.10	38.24	37.31	38.44	37.92	NM	38.81	NM	DRY	42.34	42.02	41.69	41.81						
16-S	34.24	32.57	29.19	29.08	29.86	30.20	34.76	32.99	31.13	30.89	34.54	31.22	34.29	32.53	NM	34.87	33.30	33.26	33.44	34.08	34.94	34.55	37.75	37.57	37.72	37.53	37.10	37.42
17-S	NM	30.76	30.37	30.56	30.80	31.25	31.05	33.72	32.51	32.50	33.22	32.19	33.12	32.50	NM	33.50	33.14	33.11	33.33	33.41	33.74	33.67	36.67	36.76	36.84	NM	NM	NM
21-S	29.49	29.51	29.23	29.12	29.62	30.65	30.71	32.97	31.50	32.00	32.92	31.46	32.65	32.11	34.10	33.46	32.95	DRY	DRY	DRY	DRY	34.72	DRY	37.94	37.96	NM	NM	NM
22-S	32.49	33.03	30.65	30.49	31.13	31.88	33.44	33.71	32.60	32.36	35.06	32.67	33.84	33.24	34.95	34.43	33.82	33.86	33.81	34.09	34.71	34.53	38.42	38.53	38.78	38.27	37.75	37.97
23-S	31.92	33.00	30.54	30.21	30.90	31.63	32.96	33.65	32.52	32.40	34.62	32.63	33.80	33.18	NM	33.40	33.70	33.81	33.79	34.05	34.84	34.80	38.66	38.71	38.97	38.40	37.83	38.11
25-S	NM	DRY	32.95	34.94	33.31	33.78	34.38	36.39	35.60	35.60	36.74	35.71	36.84	36.36	38.18	37.37	37.08	37.02	37.31	37.42	38.22	37.75	41.02	NM	NM	NM	NM	
26-S	NM	DRY	32.23	32.30	32.84	33.35	33.32	35.88	34.96	35.05	36.17	35.07	36.31	35.75	NM	38.00	NM											
27-S	32.56	32.41	32.61	32.62	33.22	33.77	33.80	36.01	35.35	35.45	36.44	35.56	36.53	36.04	NM	36.99	36.63	36.74	36.85	36.75	37.54	37.37	40.53	41.68	41.05	40.56	40.17	40.28
28-S	31.45	32.81	30.29	30.67	30.59	31.25	32.61	33.33	32.15	32.22	34.05	32.20	33.47	32.83	NM	34.11	33.47	33.48	33.58	33.82	34.95	NM	38.29	38.15	38.37	38.15	37.43	37.75
29-S	NM	31.81	32.07	32.30	32.73	33.19	33.31	35.98	35.03	35.06	36.37	35.23	36.35	35.77	NM	37.02	36.70	36.78	37.01	36.91	37.69	37.50	40.74	41.01	41.12	40.78	40.46	40.58
36-S	NM	27.83	27.55	27.71	28.33	30.08	29.28	31.61	31.07	30.28	31.23	29.82	30.74	30.12	32.07	31.26	30.84	30.75	31.10	31.55	32.10	31.67	35.23	35.16	35.52	35.10	34.64	34.84
37-S	NM	28.36	27.40	27.52	28.19	29.51	28.25	31.66	30.00	30.19	32.55	30.32	30.98	30.04	NM	30.80	30.88	30.71	30.77	31.10	31.86	31.39	35.82	35.65	36.46	35.82	34.75	35.18
38-S	NM	DRY	DRY	DRY	25.23	29.14	26.28	29.44	27.31	26.83	28.41	26.99	27.94	26.72	NM	27.51	NM											
54-S	NM	33.28	33.45	33.54	34.08	34.61	34.57	36.93	36.43	36.46	37.46	36.65	37.68	37.18	NM	37.13	NM											
<b>B1 Aquifer</b>																												
DW-7	NM	NM	NM	NM	NM	12.32	NM	NM	23.32	29.00	31.60	35.03	NM	36.61	36.65	37.31												
16-D	24.35	21.89	22.31	23.11	25.30	23.97	27.89	24.63	20.35	21.08	26.81	25.05	25.96	20.47	NM	26.82	26.91	26.88	27.81	28.13	33.89	33.83	38.21	37.23	38.87	36.52	36.54	37.27
23-D	23.97	11.53	16.33	16.68	15.80	20.28	18.41	19.49	13.73	15.58	16.51	15.73	17.66	19.55	17.25	16.95	18.49	17.63	17.51	19.62	34.05	34.31	39.23	38.00	40.21	37.24	37.45	38.23
25-D	NM	32.70	32.86	33.00	33.54	34.18	34.10	36.49	35.81	35.86	36.91	35.99	36.90	36.45	NM	36.50	NM											
27-D	32.60	32.42	32.60	32.68	33.28	33.90	33.87	36.22	35.49	35.62	37.83	35.74	36.69	36.24	37.94	37.26	36.98	37.15	37.20	37.14	37.83	37.68	41.01	42.02	41.44	40.99	40.60	40.73
28-D	31.47	32.81	30.29	29.96	30.59	31.25	32.59	33.34	33.16	32.14	34.07	32.22	33.64	33.01	NM	34.29	33.62	33.68	33.81	34.01	35.16	35.29	38.45	37.61	38.53	38.14	37.51	37.85
29-D	NM	32.10	32.25	32.40	32.95	33.60	33.56	NA	35.21	35.33	36.46	35.38	36.46	35.95	NM	37.08	36.83	36.93	37.14	37.06	37.83	37.61	40.95	41.17	41.26	40.84	40.47	40.65
36-D	NM	27.89	27.64	27.80	28.36	30.16	29.27	31.69	30.17	30.39	31.34	29.95	30.81	30.20	32.05	31.26	30.90	30.78	31.12	31.11								

**APPENDIX B****HISTORICAL GROUNDWATER ELEVATION DATA**

FORMER 901/901 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Well ID	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15	Oct-16	Oct-17	Oct-18	Oct-19
<b>A Aquifer</b>									
14-S	NM								
15-S	42.17	41.97	41.84	41.35	40.43	40.15	41.73	42.13	42.26
16-S	38.09	37.56	37.29	37.03	36.46	36.02	36.94	37.39	37.40
17-S	NM								
21-S	NM								
22-S	38.59	38.19	37.87	37.57	36.65	36.69	37.83	38.34	38.15
23-S	38.74	38.28	38.02	37.65	36.74	36.74	37.80	38.30	38.20
25-S	NM								
26-S	NM								
27-S	40.66	40.39	40.21	39.73	38.80	38.78	40.05	40.45	40.48
28-S	38.47	37.93	37.71	37.42	36.65	36.56	37.90	38.09	38.09
29-S	40.99	40.78	40.57	40.12	39.11	39.20	40.66	40.99	41.03
36-S	35.21	35.06	34.78	34.87	34.29	34.37	35.05	35.46	35.37
37-S	35.63	35.52	35.05	35.24	34.34	34.48	35.36	35.95	35.78
38-S	NM								
54-S	NM								
<b>B1 Aquifer</b>									
DW-7	37.95	37.90	37.72	37.41	36.45	37.13	38.58	39.24	39.09
16-D	37.82	37.80	37.54	37.34	36.41	36.86	38.29	NM	NA
23-D	39.20	39.98*	38.68	38.29	37.38	38.31	39.89	40.63	40.69
25-D	NM								
27-D	41.08	40.81	40.62	40.19	39.18	39.19	40.41	40.98	40.90
28-D	38.55	37.99	37.79	37.52	36.75	36.78	38.15	38.27	38.17
29-D	41.05	40.82	40.66	40.17	39.17	39.17	40.57	41.14	41.07
36-D	35.24	35.09	34.82	34.90	34.15	34.36	35.08	35.52	35.40
52-D	39.32	39.13	38.82	38.51	37.33	37.71	39.10	39.35	39.40
53-D	43.47	43.18	42.98	42.21	41.38	41.86	43.50	43.96	43.95
<b>B2 Aquifer</b>									
22-DD	39.20	38.99	38.67	38.29	37.42	38.35	37.93	40.69	40.68
27-DD	42.60	42.26	41.84	40.97	39.98	40.91	42.49	43.38	43.53
30-DD	NM								
36-DD	35.86	35.69	35.39	35.34	34.57	35.01	36.36	36.57	36.80
<b>B3 Aquifer</b>									
35-DDD	41.48	41.17	40.41	39.58	37.99	39.95	41.04	42.80	42.87

**Notes:**

DRY	DRY = No water in well
IA	IA = Well inaccessible
NA	NA = Not available
NI	NI = Not installed
NM	NM = Not measured

\* Water level measurement is believed to be inaccurate.

Groundwater elevations are reported in feet above mean sea level (USGS Datum) through 2004 and feet NAVD88 since 2005.

Top of casing elevations were resurveyed in October 1997 and again in December 2005. Groundwater elevations measured during subsequent monitoring events were calculated using resurveyed elevations

Well 16-D was decommissioned in September 2019.

## **APPENDIX C**

### **Historical TCE, cDCE, and Total VOC Concentrations**

## APPENDIX C-1

HISTORICAL TRICHLOROETHENE CONCENTRATIONS IN GROUNDWATER  
 FORMER 901/902 THOMPSON PLACE FACILITY  
 SUNNYVALE, CALIFORNIA

Page 1 of 2

Date	Extraction Wells								A-Zone Wells																B1-Zone Wells								B3-Zone Well						
	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	DW-7	DW-8	14-S	15-S	16-S	17-S	21-S	22-S	23-S	25-S	26-S	27-S	28-S	29-S	36-S	37-S	38-S	54-S	16-D	23-D	25-D	27-D	28-D	29-D	36-D	52-D	53-D	22-DD	27-DD	30-DD	36-DD	35-DDD	
Apr-82	NS	NS	NS	NI	NI	NI	NI	NI	1	1	400	1	2100	6700	3700	1450	1400	1100	13000	99	NS	NS	NS	NI	1000	2200	600	320	29000	110	NS	NI	NI	11000	NS	740	NS	NI	
Jun-82	NS	NS	NS	NI	NI	NI	NI	NI	NS	17	NS	910	1800	1100	640	440	1100	14000	110	710	2600	1250	NI	3200	3900	600	140	16000	43	NS	NI	NI	280	250	2200	NS	NI		
Jul-82	NS	NS	NS	NI	NI	NI	NI	NI	NS	180	NS	NS	6500	5300	210	1200	1700	23000	110	NS	NS	NS	NI	NS	7900	170	260	30000	100	210	NI	NI	660	17	NS	40	NI		
Aug-82	NS	NS	NS	NI	NI	NI	NI	NI	NS	NS	3900	NS	NS	590	1400	2200	NI	NS	1600	NS	NS	NS	NS	500	NI	NI	420	NS	930	31	NI								
May-83	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	110	NS	110000	NS	82	270	2000	NI	1700	2000	NS	NS	20000	NS	9200	NI	NI	26	NS	NS	990	NI							
Jul-83	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	NS	NS	NS	NS	NS	NI	NS	1800	NS	NS	NS	NS	650	NI	NI	360	NS	NS	NS	NI									
Sep-83	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	130	NS	NS	780	120	NS	780	2000	24000	NS	290	3200	4000	NI	46000	520	340	840	37000	NS	160	NI	NI	380	NS	NS	NS	NI	
Mar-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	11	51	NS	810	390	410	1500	830	1100	73	58	150	450	NS	NI	420	1	440	290	27	310	110	NI	NI	500	15	610	1	NI
Apr-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	80	NS	920	650	310	1300	810	910	61	63	170	610	1700	NI	1000	370	440	370	18	450	130	NI	NI	580	9	610	NS	NI	
May-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	75	NS	900	1360	420	1400	880	1200	150	340	160	600	1600	NI	1050	1300	NS	350	190	70	160	NI	NI	NS	39	530	11	NI	
Jun-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	72	NS	1240	1860	270	1010	1370	950	300	100	220	510	1710	NI	620	190	590	330	560	810	170	NI	NI	840	2	690	1	NI	
Jul-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	70	NS	1230	1940	480	1580	980	870	220	110	160	730	2380	NI	100	1410	540	300	160	380	160	NI	NI	NS	20	170	7	NI
Aug-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	1	NS	NS	4	1900	NS	800	NS	1560	1900	NS	185	280	620	NS	NI	NS	960	640	NS	NS	NI	590	75	1260	12	NS	NS	NS	
Sep-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1200	NS	980	1900	920	1700	1200	1300	240	120	120	690	1800	NI	820	1400	430	430	220	430	130	NI	NI	470	28	780	13	7	
Oct-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	940	NS	1000	1500	970	1800	1100	1200	170	160	130	420	2700	NI	230	4900	520	520	240	570	190	NI	NI	330	100	770	53	8	
Nov-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	540	23	1200	2300	1400	1500	1440	1200	230	115	136	340	3000	NI	950	1100	690	530	130	560	150	NI	NI	350	59	720	9	5	
Dec-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	450	NS	1100	2800	1100	2200	1200	1600	300	110	150	690	2200	NI	630	3200	460	510	120	590	1	NI	NI	760	37	690	9	4
Jan-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	260	NS	1100	2400	570	2100	950	2200	1500	160	160	1	1800	NI	290	540	620	450	460	570	120	NI	NI	520	23	9	9	NS	
Feb-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	490	NS	1100	2200	1100	1400	720	780	820	150	130	470	1100	NI	260	570	450	510	510	670	180	NI	NI	490	350	700	12	1	
Apr-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	350	NS	750	1500	700	1030	430	1200	2200	150	45	360	2000	NI	1100	1300	380	250	830	310	70	NI	NI	450	94	130	2	1
Jun-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	NS	70	1200	590	1700	870	1500	1800	160	110	640	2500	NI	600	1400	600	310	860	340	130	NI	NI	660	140	370	14	4	
Sep-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	2900	NS	1100	1000	780	3500	840	1500	2000	150	NR	620	2400	NI	150	1600	590	310	1100	440	120	NI	NI	520	330	480	9	1	
Oct-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	69	NS	830	880	890	1900	550	1300	1800	84	68	290	1100	NI	350														

## APPENDIX C-1

HISTORICAL TRICHLOROETHENE CONCENTRATIONS IN GROUNDWATER  
 FORMER 901/902 THOMPSON PLACE FACILITY  
 SUNNYVALE, CALIFORNIA

Page 2 of 2

Date	Extraction Wells								A-Zone Wells																B1-Zone Wells								B3-Zone Well						
	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	DW-7	DW-8	14-S	15-S	16-S	17-S	21-S	22-S	23-S	25-S	26-S	27-S	28-S	29-S	36-S	37-S	38-S	54-S	16-D	23-D	25-D	27-D	28-D	29-D	36-D	52-D	53-D	22-DD	27-DD	30-DD	36-DD	35-DDD	
Jan-93	NS	NS	NS	NS	NS	NS	790	21	ND	NS	NS	ND	1090	44	8	NS	NS	NS	140	NS	62	NS	380	ND	820	1200	NS	NS	130	NS	NS	NS	430	NS	20	NS	ND		
Apr-93	NS	NS	NS	NS	NS	NS	400	12	ND	ND	64	ND	670	140	12	NS	44	440	160	110	51	740	660	1	240	950	730	380	110	71	85	340	4.1	270	110	23	36	2.9	
Jul-93	NS	NS	NS	NS	NS	NS	240	ND	ND	81	2	570	82	36	28	33	540	160	80	70	610	NS	2	500	1200	NS	NS	160	NS	NS	NS	310	NS	51	NS	4.4			
Oct-93	NS	NS	NS	NS	NS	NS	520	160	ND	ND	60	ND	400	94	10	NS	NS	330	110	54	60	430	NS	1	260	760	370	290	120	140	NS	92	NS	360	320	460	NS	4	
Jan-94	NS	NS	NS	NS	NS	NS	NS	280	ND	ND	60	ND	400	68	33	4	39	450	160	39	48	280	NS	ND	170	1100	NS	NS	130	NS	NS	NS	300	NS	360	NS	3		
Apr-94	NS	NS	NS	NS	NS	NS	390	290	ND	ND	61	ND	450	62	30	10	34	370	210	40	43	400	NS	4	120	950	350	350	140	390	88	160	ND	280	420	32	57	2.3	
Jul-94	NS	NS	NS	NS	NS	NS	440	270	ND	ND	58	2	480	100	16	2	63	390	140	130	39	400	950	1	140	290	NS	NS	120	NS	NS	NS	270	NS	35	NS	5.2		
Oct-94	NS	NS	NS	NS	NS	NS	460	350	ND	ND	86	1	530	120	10	50	86	670	130	190	22	400	210	1	180	780	350	280	120	300	NS	7.1	NS	480	290	58	NS	2	
Jan-95	NS	NS	NS	NS	NS	NS	370	350	ND	ND	42	1	370	84	20	8	82	530	130	72	ND	310	580	ND	120	460	NS	NS	100	NS	NS	NS	110	NS	5.9	NS	NS		
Apr-95	NS	NS	NS	NS	NS	NS	420	240	ND	ND	1.2	ND	340	91	37	7.5	97	490	160	120	17	270	630	0.8	270	640	410	260	120	300	56	250	0.6	120	460	30	47	1.9	
Jul-95	NS	NS	NS	NS	NS	NS	110	240	ND	ND	52	ND	460	100	28	4.7	380	620	180	140	24	420	810	1.1	280	810	NS	NS	160	NS	NS	NS	270	NS	210	NS	1.8		
Oct-95	NS	NS	NS	NS	NS	NS	390	330	ND	ND	84	NS	920	120	40	11	380	800	220	190	20	410	1300	1.2	270	710	310	280	170	300	NS	14	NS	350	770	420	NS	2.6	
Apr-96	1900	NS	210	120	74	390	330	250	ND	ND	85	2.2	380	68	45	11	290	640	190	88	7.9	250	710	1.5	110	540	63	220	140	350	11	45	ND	210	410	270	44	0.6	
Oct-96	NS	NS	NS	NS	NS	NS	240	240	NS	NS	38	NS	320	94	7	14	NS	750	180	110	NS	NS	370	NS	39	310	220	190	140	200	NS	21	NS	92	320	93	NS	0.8	
Apr-97	1600	NS	190	95	78	230	250	200	ND	ND	46	1.9	340	130	14	87	120	430	370	82	21	170	120	1.4	80	340	18	220	200	91	32	56	ND	200	260	15	18	1.4	
Oct-97	2200	NS	180	170	75	230	220	NS	ND	ND	50	4.4	290	120	22	74	120	640	310	100	20	260	160	1.5	120	250	200	190	150	210	52	0.7	ND	210	310	49	13	1.8	
Apr-98	1400	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	NS	NS	95	NS	NS	NS	NS	NS	NS	NS	81	NS	NS	NS	NS	NS	11	NS										
Oct-98	910	NS	NS	NS	93	NS	NS	260	ND	ND	34	10	190	70	NS	39	NS	NS	340	95	7.2	NS	NS	NS	67	240	NS	NS	NS	180	1.1	0.7	ND	210	NS	NS	11	1.6	
May-99	NS	NS	190	240	52	210	230	230	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS			
Oct-99	1800	NS	NS	260	86	280	240	230	ND	NS	44	15	230	38	16	32	NS	810	550	71	100	83	NS	56	300	NS	200	370	150	3.2	190	ND	220	290	NS	6.4	ND		
Jan-00	NS	NS	NS	71	NS	NS	NS	NS	NS	NS	NS	NS	NS	730	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS												
Oct-00	1100	12	NS	280	110	190	210	210	ND	NS	33	14	NS	27	6.3	110	NS	620	370	52	83	200	NS	31	170	NS	190	360	160	110	4.2	3.8	NS	200	NS	6.4	1		
Oct-01	1400	12	NS	250	100	240	250	250	ND	NS	25	22	NS	26	3.1	62	NS	680	270	30	140	150	NS	82	180	NS	140	470	160	67	5.4	4.1	NS	300	NS	11	1		
Oct/Nov-02	730	NS	NS	250	110	240	210	270	ND	NS	43	38	NS	33																									

## APPENDIX C-2

HISTORICAL CIS-1,2-DICHLOROETHENE CONCENTRATIONS IN GROUNDWATER  
 FORMER 901/902 THOMPSON PLACE FACILITY  
 SUNNYVALE, CALIFORNIA

Page 1 of 2

Date	Extraction Wells								A-Zone Wells																B1-Zone Wells								B3-Zone Well						
	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	DW-7	DW-8	14-S	15-S	16-S	17-S	21-S	22-S	23-S	25-S	26-S	27-S	28-S	29-S	36-S	37-S	38-S	54-S	16-D	23-D	25-D	27-D	28-D	29-D	36-D	52-D	53-D	22-DD	27-DD	30-DD	36-DD	35-DDD	
Apr-82	NS	NS	NS	NI	NI	NI	NI	NI	1	1	2700	1	10	4200	3600	10	160	120	700	5	NS	NS	NS	NI	810	4600	10	10	1300	5	NS	NI	NI	8200	NS	5	NS	NI	
Jun-82	NS	NS	NS	NI	NI	NI	NI	NI	NS	1	NS	750	1520	750	1	37	2	1400	2	10	10	10	NI	46	6800	2	9	2800	1	NS	NI	NI	770	2	170	NS	NI		
Jul-82	NS	NS	NS	NI	NI	NI	NI	NI	NS	2100	NS	NS	17000	5500	28	110	4	4500	4	NS	NS	NS	NI	NS	2700	14	4	5100	4	5	NI	NI	NS	4	NS	5	NI	NI	
Aug-82	NS	NS	NS	NI	NI	NI	NI	NI	NS	NS	NS	NS	3300	NS	NS	NS	NS	NS	NS	NS	55	27	300	NI	NS	NS	NS	NS	NS	52	NI	NI	1700	NS	110	3	NI		
May-83	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	2400	NS	NS	NS	NS	NS	NS	NS	NS	70000	NS	1	17	350	NI	35	NS	NS	12000	NS	1	NI	NI	44	NS	NS	120	NI	
Jul-83	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	38	NI	NI	NS	NS	NS	NS	NI		
Mar-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	1300	NS	210	920	3300	7	45	12	1500	9	13	27	NS	NI	1200	5700	21	8	1800	14	13	NI	NI	110	6	38	44	NI
Apr-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	2500	NS	140	1400	4800	6	43	11	1100	8	14	21	210	NI	870	3400	16	9	1100	13	10	NI	NI	82	1	10	NS	NI	
May-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	4100	NS	106	1800	3900	6	38	14	1800	8	10	22	200	NI	660	4800	NS	45	1100	18	13	NI	NI	NS	10	9	31	NI	
Jun-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	5200	NS	80	2090	1070	4	26	6	1420	10	10	12	180	NI	540	1610	10	6	1470	13	9	NI	NI	34	1	7	6	NI	
Jul-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	6300	NS	63	2630	1071	5	29	8	960	10	7	1	250	NI	63	4300	14	6	610	1	11	NI	NI	NS	5	3	1	NI
Aug-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	NS	20	490	NS	1000	100	45	NS	40	64	70	NS	NI	NS	96	47	NS	NS	NS	NI	NI	390	1	18	45	NS		
Sep-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	3100	NS	81	2300	1200	11	21	19	1400	12	6	23	190	NI	890	2200	12	8	1200	16	8	NI	NI	430	6	4	11	2	
Oct-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	3800	NS	78	2500	1100	1	16	16	1200	8	7	4	190	NI	250	4200	11	8	1100	11	13	NI	NI	67	100	8	25	1	
Nov-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	4500	7	141	2200	1800	1	42	56	1100	6	7	15	270	NI	1600	4200	15	8	1100	10	9	NI	NI	420	8	5	13	1	
Dec-85	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	6100	NS	100	3500	1700	1	28	1	1700	6	10	1	270	NI	3000	9100	270	37	1200	14	8	NI	NI	1000	3	9	13	1
Jan-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	5900	NS	80	1700	1300	1	22	1	3900	14	9	14	180	NI	4600	5700	12	9	1900	13	10	NI	NI	1	1	100	14	NS	NS
Feb-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	2600	NS	78	1800	1700	15	15	1	3900	21	7	11	100	NI	4000	6000	14	10	3100	14	12	NI	NI	530	10	6	16	1	
Apr-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1	9600	NS	40	920	2000	1	11	1	3200	19	4	7	140	NI	3100	9600	7	6	2400	11	5	NI	NI	920	2	5	7	8
Jun-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	6600	NS	6	1200	2000	60	15	21	9200	20	6	20	150	NI	1600	2200	13	8	8000	10	9	NI	NI	610	4	5	20	10	
Aug-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	6600	NS	61	880	1700	1	16	10	13000	11	NS	15	97	NI	590	1400	10	7	9700	10	8	NI	NI	1100	8	4	16	1	
Oct-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	1100	NS	56	1300	1500	410	13	11	6300	12	6	25	120	NI	670	4100	1	8	7300	10	7	NI	NI	660	3	10	30	4	
Dec-86	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	440	NS	870	700	1400	1	6	5	4500	9	5	31	100	NI	590	5100	9	4	5100	42	4	NI	NI	1300	6	150	9	1	
Feb-87	NS	NS	NS	NI	NI	NI	NI	NI	NI	NS	290	NS	1200	1800	1500	1	19	1	4800	13	6	26	210	NI	430	3700	9	6	5300	10	6								

### Notes:

ND = Not detected

NI = Not installed

NS = Not sampled

Concentrations reported in micrograms per liter ( $\mu\text{g/L}$ ).

Maximum of primary and duplicate concentrations presented in table

## APPENDIX C-3

## HISTORICAL TOTAL VOLATILE ORGANIC COMPOUND CONCENTRATIONS IN GROUNDWATER

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Date	Extraction Wells								A-Zone Wells															B1-Zone Wells							B2-Zone Wells					B3-Zone Well				
	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	DW-7	DW-8	14-S	15-S	16-S	17-S	21-S	22-S	23-S	25-S	26-S	27-S	28-S	29-S	36-S	37-S	38-S	54-S	16-D	23-D	25-D	27-D	28-D	29-D	36-D	52-D	53-D	22-DD	27-DD	30-DD	36-DD	35-DDD		
Jan-91	NS	NS	NS	NS	NS	NS	NI	NI	NS	NS	208	NS	122	NS	NS	NS	NS	NS	1310	1920	474	369	348	486	125	462	NS	1010	384	103	40	2								
Apr-91	NS	NS	NS	NS	NS	NS	NI	NI	ND	NS	235	NS	4	1160	1515	464	432	405	582	125	197	4	590	399	192	33	1													
Jul-91	NS	NS	NS	NS	NS	NS	NI	NI	NS	NS	363	NS	857	2090	449	410	2830	483	129	341	NS	987	304	728	48	1														
Oct-91	NS	NS	NS	NS	NS	NS	NI	NI	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.6	1692	2600	390	320	1170	400	143	190	4.4	898	250	95	42	0.8	
Jan-92	NS	NS	NS	NS	NS	NS	NI	NI	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	21	NS	NS	NS	NS	1332	1290	433	393	820	436	121	211	NS	706	290	25	25	ND		
Apr-92	NS	NS	NS	NS	NS	NS	NI	NI	1.5	NS	217	1.4	374	NS	NS	NS	NS	NS	169	NS	53	NS	NS	ND	469	1485	145	262	202	133	123	197	ND	441	259	66	25	1.2		
Jul-92	NS	NS	NS	NS	NS	NS	NI	NI	ND	NS	263	NS	1065	841	757	NS	NS	NS	NS	64	NS	NS	4.5	1161	1238	461	411	287	441	149	366	NS	1660	408	274	31	0.9			
Oct-92	NS	NS	NS	NS	NS	NS	NI	NI	NS	NS	352	NS	255	NS	445	NS	NS	NS	330	NS	57	NS	NS	21	301	1554	125	254	339	415	119	132	4.6	8392	318	177	40	1.6		
Jan-93	NS	NS	NS	NS	NS	NS	NS	NS	850	29	ND	NS	NS	ND	1967	454	584	NS	NS	920	NS	64	NS	1089	ND	1275	3453	NS	NS	1124	NS	NS	NS	NS	4069	NS	35	NS	ND	
Apr-93	NS	NS	NS	NS	NS	NS	NS	NS	536	12	ND	ND	154	4	2236	1932	2375	NS	218	616	751	128	60	767	1198	4.3	1457	2577	813	423	2115	81	94	390	9.9	2806	152	84	49	2.9
Jul-93	NS	NS	NS	NS	NS	NS	NS	NS	259	ND	8.2	173	5.4	1667	679	1996	48	280	737	689	97	74	640	NS	4.4	1490	1949	NS	NS	2036	NS	NS	NS	NS	2314	NS	115	NS	5.1	
Oct-93	NS	NS	NS	NS	NS	NS	NS	NS	706	171	1.2	ND	128	4	951	465	815	NS	NS	439	574	81	69	444	NS	4	767	1789	416	321	599	145	NS	112	NS	2089	350	498	NS	4.7
Jan-94	NS	NS	NS	NS	NS	NS	NS	NS	306	ND	ND	101	6	1213	480	1384	20	262	563	936	94	50	291	NS	2.5	819	1740	NS	NS	1137	NS	NS	NS	NS	1146	NS	402	NS	3.7	
Apr-94	NS	NS	NS	NS	NS	NS	NS	NS	548	310	ND	ND	103	6	1241	361	923	34	296	419	515	54	45	414	NS	7.2	622	1444	404	385	965	424	92	177	ND	1567	450	57	65	2.9
Jul-94	NS	NS	NS	NS	NS	NS	NS	NS	584	284	ND	ND	139	5.1	1340	475	1370	37	368	464	806	147	41	416	1320	4	721	650	NS	NS	891	NS	NS	NS	NS	420	NS	57	NS	6.5
Oct-94	NS	NS	NS	NS	NS	NS	NS	NS	560	378	ND	ND	299	4.7	1528	518	1629	61	271	735	1000	208	23	417	379	4.2	764	1631	385	304	1196	329	NS	8.8	NS	660	306	75	NS	2.6
Jan-95	NS	NS	NS	NS	NS	NS	NS	NS	476	369	ND	ND	153	1.4	1093	492	986	8	100	576	517	77	ND	323	1091	302	506	1238	NS	NS	935	NS	NS	NS	NS	2106	NS	25	NS	ND
Apr-95	NS	NS	NS	NS	NS	NS	NS	NS	550	266	ND	ND	280	1.8	959	429	1515	38	194	537	848	138	18	280	864	5	586	1360	458	289	877	330	67	277	1.3	1608	490	42	62	1.9
Jul-95	NS	NS	NS	NS	NS	NS	NS	NS	681	255	ND	ND	151	2.7	1155	427	1032	14	537	730	1080	163	27	432	1044	4.1	740	1515	NS	NS	1061	NS	NS	NS	NS	1015	NS	315	NS	1.8
Oct-95	NS	NS	NS	NS	NS	NS	NS	NS	474	330	ND	ND	313	5	1360	628	1466	26	467	842	1283	190	22	410	1440	4.2	545	1212	310	280	1174	300	NS	16	NS	750	770	512	NS	2.6
Apr-96	3578	NS	262	1068	212	411	507	279	ND	ND	172	15	982	281	911	16	379	681	910	94	7.9	256	1077	3.1	177	1084	68	233	804	375	26	46	0.6	575	431	396	65	0.6		
Oct-96	NS	NS	NS	NS	NS	NS	NS	NS	294	246	NS	NS	154	NS	552	455	327	18	NS	750	739	110	NS	NS	920	NS	319	750	241	190	563	200	NS	21	NS	562	333	102	NS	0.

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
23-S	12/6/2005	<0.5	37	84	14	1.9	31	0.5	<0.5	11	<0.5	1.0	<0.5	<0.5	<1	180	--	--	--	--
	2/14/2006	<1.0	38	140	15	2.2	11	<1.0	<1.0	6.4	<1.0	<1.0	<1.0	<1.0	<1.0	213	--	--	--	--
	5/2/2006	<1.0	18	210	15	1.9	15	<1.0	<1.0	11	<1.0	<1.0	<1.0	<1.0	<2	271	--	--	--	--
	8/2/2006	<0.5	14	49	18	0.7	10	<0.5	12	6.9	<0.5	0.7	<0.5	<0.5	<1	111	--	--	--	--
	11/7/2006	<0.5	29 J	67	25	1.7	14	0.5	16	12	<0.5	0.8	<0.5 UJ	<0.5	3	169	--	--	--	--
	5/31/2007	<0.5	41	71	8.7	2.2	15	<0.5	1.7	5.6	<0.5	<0.5	<0.5	<0.5	<1	145	1.5	<0.025	58	2.6
	8/21/2007	<0.5	50	88	16	2.2	40	0.6	3.9	11	<0.5	0.5	<0.5	<0.5	<1.0	212	4.0	0.52	59	2.8
	10/22/2007	<0.5	52	60	6.0	1.8	25	<0.5	<0.5	5.9	<0.5	<0.5	<0.5	<0.5	<1.0	151	3.2	<0.025	980	4.4
	2/5/2008	0.7	34	43	5.0	1.1	14	<0.5	0.6	4.4	<0.5	<0.5	<0.5	<0.5	1.6	104	1.9	0.028	1,700	5.1
	5/2/2008	<0.5	22	180	37	3.0	100	0.6	4.0	8.8	<0.5	0.5	<0.5	<0.5	2.8	359	42	0.12	2,300	20
	7/18/2008	<0.5	38	71	15	2.0	22	<0.5	0.7	5.9	<0.5	<0.5	<0.5	<0.5	2.4	157	1.8	<0.025	500	4.9
	10/7/2008	<0.5	29	130	17	1.5	23	<0.5	2.1	20	<0.5	0.9	<2.0	<0.5	3.2	227	0.99	0.070	1,900	4.3
	2/10/2009	<0.5	18	89	6.1	1.3	6.9	<0.5	1.0	12	<0.5	0.5	<2.0	<0.5	<1.0	135	0.25	<0.025	190	3.5
	5/27/2009	<1.0	9.3	130	8.3	1.5	7.9	<1.0	<1.0	14	<1.0	<1.0	<4.0	<1.0	<2.0	171	0.26	0.036	270	2.4
	7/13/2009	<1.0	7.9	150	9.4	1.6	13	<1.0	<1.0	22	<1.0	<1.0	<4.0	<1.0	<2.0	204	0.30	0.029	420	2.6
	10/16/2009	<1.0	17	200	12.0	2.0	11	<1.0	1.1	23	<1.0	1.0	<4.0	<1.0	<2.0	267	0.59	0.052	410	3
	2/19/2010	<0.5	14	77	4.6	0.8	2.8	<0.5	<0.5	8	<0.5	<0.5	<2.0	<0.5	<1.0	107	0.038	<0.025	70	6.3
	4/23/2010	<0.5	16	76	4.4	0.8	1.8	<0.5	<0.5	6.6	<0.5	<0.5	<2.0	<0.5	<1.0	106	0.051	<0.025	36	7.4
	7/7/2010	<1.3	32	130	7.3	<1.3	9.5	<1.3	<1.3	14	<1.3	<1.3	<5.0	<1.3	<2.5	193	0.18	<0.025	93	2.3
	10/21/2010	<1.3	9.5	350	19	<1.3	160	<1.3	1.6	18	<1.3	<1.3	<5.0	<1.3	<2.5	558	5.4	0.036	370	2.7
	2/1/2011	0.7	18	77	5.1	0.6	3.7	<0.5	<0.5	7.0	<0.5	<0.5	<2.0	<0.5	<1.0	112	0.07	<0.025	6.3	7.1
	4/14/2011	0.9	20	63	4.8	0.7	1.2	<0.5	<0.5	5.6	<0.5	<0.5	<2.0	<0.5	<1.0	96	<0.025	<0.025	3.4	6.2
	7/22/2011	<0.7	26	110	7.8	0.8	3.4	<0.7	<0.7	16	<0.7	<0.7	<2.9	<0.7	<1.4	164	0.12	<0.025	29	2.7
	10/26/2011	<1.0	19	270	20.0	1.0	100	<1.0	1.0	18	<1.0	<1.0	<4.0	<1.0	<2.0	429	1.4	0.11	130	2.5
	2/8/2012	0.7	40	86	5.1	0.9	<0.50	<0.50	9.4	<0.50	0.50	<2.0	<0.50	<1.0	143	0.031	0.0065 J	4.1	2.5	
	4/19/2012	1.1	17	51	5.6	0.8	6.2	<0.50	<0.50	7.5	<0.50	<0.50	<2.0	<0.50	<1.0	89	0.10	0.0059 J	4.4	5.5
	7/23/2012	0.7	24	80	7.0	0.6	6.8	<0.50	<0.50	9.7	<0.50	0.60	<2.0	<0.50	<1.0	129	0.11	0.0074 J	5.9	2.1
	10/10/2012	0.9 J	30 J	120 J	7.6 J	<1.0	15 J	<0.50	0.5 J	20 J	<0.50	0.80 J	<2.0	<0.50	<1.0	195	0.17	0.15	25	1.9
	3/12/2013	1.0	31	46	4.5	0.5	5.7	<0.5	<0.5	9.1	<0.5	<0.5	<2.0	<0.5	<1.0	98	0.052	0.20	410	4.1
	6/4/2013	0.8	34	64	3.2	0.6	0.9	<0.5	<0.5	11	<0.5	0.5	<2.0	<0.5	<1.0	115	0.011 J	0.11	63	2.5
	8/29/2013	1.1	38	120	12	1.3	6.1	<0.5	<0.5	17	<0.5	0.7	<2.0	<0.5	<1.0	196	0.12	0.68	310	2.5
	10/17/2013	1.0	37	130	13	1.5	12	<0.5	<0.5	20	<0.5	0.8	<2.0	<0.5	<1.0	215	0.14	0.62	270	2.4
	3/4/2014	1.1	36	97	8.7	1.3	3.0	<1.0	<1.0	14	<1.0	<1.0	<4.0	<1.0	<2.0	161	0.024 J	0.13	30	2.6
	5/27/2014	0.9	29	93	6.5	0.8	0.7	<0.5	<0.5	9.8	<0.5	0.6	<2.0	<0.5	<1.0	141	0.0083 J	0.072	36	2.2
	8/18/2014	1.4	48	120	12	1.6	7.6	<0.5	<0.5	17	<0.5	0.8	<2.0	<0.5	<1.0	208	0.10 J-	0.21 J-	130 J-	2.4
	10/14/2014	1.0	36	130	10	1.1	9.2	<1.0	<1.0	17	<1.0	<1.0	<4.0	<1.0	<2.0	204	0.087	0.14	82	2.2
	2/5/2015	0.8	27	90	7.6	0.6	1.5	<0.6	<0.6	7.0	<									

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)	
23-D	12/6/2005	<0.7	230	390	15	1.8	56	0.7	<0.7	11	<0.7	1.0	3.0	<0.7	<1.4	709	0.67	0.026	11	1.1	
	2/14/2006	<1.0	140	160	11	1.4	20	<1.0	<1.0	6.5	<1.0	<1.0	3.6	<1.0	<2.0	343	0.28	0.067	41	1.6	
	5/2/2006	<1.0	140	370	16	2.1	40	<1.0	<1.0	9.5	<1.0	<1.0	3.4	<1	<2	581	0.62	0.080	130	33	
	8/2/2006	<0.5	56	54	13	<0.5	82	0.6	4.2	5.2	<0.5	<0.5	2.2	<0.5	<1	217	60 J	0.11 J	2,700 J	22	
	11/07/2006 <sup>4</sup>	<0.5	3.1 J	47	6.6	<0.5	21	0.7	3.0	3.0	<0.5	<0.5	4.1 J	<0.5	<1	89	--	--	--	--	
	2/15/2007	<0.5	6.6	69	4.6	<0.5	41	0.7	2.8	1.6	<0.5	<0.5	2.6	<0.5	<1	129	14	0.043	130	3.5	
	5/31/2007	<0.5	9.3	83	2.7	0.7	15	0.7	1.6	1.1	<0.5	<0.5	3.4	0.7	<1	118	6.3	0.041	130	1.6	
	8/21/2007	<1.0	28	140	2.5	<1.0	34	<1.0	<1.0	<1.0	<1.0	<1.0	2.8	<1.0	<2.0	207	9.0	0.11	36	1.3	
	10/22/2007	<1.3	210	28	<1.3	<1.3	2.4	<1.3	<1.3	<1.3	<1.3	<1.3	7.0	<1.3	<2.5	247	0.52	<0.025	1.4	0.79	
	2/5/2008	<1.0 / <0.7	110 / 120	9.8 / 9.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<1.0 / <0.7	<2.0 / <1.4	130	<0.025	<0.025	0.20	5.6 / 5.5
	5/2/2008	<1.0 / <1.7	280 / 270	9.8 / 9.6	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <1.7	<1.0 / <0.7	<2.0 / <1.4	294	0.060	<0.025	1.6	0.71 / 0.67
	7/18/2008	<1.3 / <1.7	270 / 280	10 / 10	<1.3 / <1.7	<1.3 / <1.7	1.3 / <1.7	<1.3 / <1.7	<1.3 / <1.7	<1.3 / <1.7	<1.3 / <1.7	<1.3 / <1.7	5.1 / 5.4	<1.3 / <1.7	<2.5 / <3.3	297	0.18	<0.025	0.50	0.50 / 0.59	
	10/7/2008	<2.5 / <0.7	300 / 290	8.0 / 8.7	<2.5 / <0.7	<2.5 / 0.8	<2.5 / <2.5	<2.5 / <0.7	<2.5 / <0.7	<2.5 / <0.7	<2.5 / <0.7	<2.5 / <0.7	<10 / 4.9	<2.5 / <0.7	<5.0 / <1.4	314	0.30	<0.025	2.9	0.78 / 0.78	
	2/10/2009	<2.5 / <0.5	200 / 180	260 / 230	11 / 11	<2.5 / 1.6	<2.5 / 1.3	<2.5 / 0.7	<2.5 / <0.7	<2.5 / 0.8	<2.5 / <0.5	<2.5 / <0.5	<10 / 3.7	<2.5 / <0.5	<5.0 / <1.0	479	0.055	<0.025	0.69	0.67 / 0.60	
	6/1/2009	<1.7 / <2.0	270 / 210	150 / 100	7.9 / 5.3	<1.7 / <2.0	2.3 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<6.7 / <8.0	<1.7 / <2.0	<3.3 / <4.0	430	0.16	<0.025	0.86	0.56 / 0.67	
	7/13/2009	<1.7 / <0.5	220 / 190	240 / 190	11 / 12	<1.7 / 1.6	4.5 / 4.8	<1.7 / 0.5	<1.7 / 0.5	<1.7 / <0.5	<1.7 / <0.5	<1.7 / <0.5	<6.7 / 3.2	<1.7 / <0.5	<3.3 / <1.0	483	0.10	<0.025	1.1	1.5 / 1.2	
	10/16/2009	<1.7 / <2.0	180 / 180	350 / 330	19 / 18	2.6 / <2.0	41 / 40	<1.7 / <2.0	4.1 / 4.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<6.7 / <8.0	<1.7 / <2.0	<3.3 / <4.0	597	2.6	0.031	130	1.2 / 1.2	
	2/19/2010	<1.3 / <1.3	140 / 140	150 / 150	7.9 / 7.8	<1.3 / <1.3	2.3 / 2.3	<1.3 / <1.3	<1.3 / <1.3	<1.3 / <1.3	<1.3 / <1.3	<1.3 / <1.3	<5.0 / <5.0	<1.3 / <1.3	<2.5 / <2.5	300	0.075	<0.025	2.8	2.3 / 2.3	
	4/23/2010	<1.7 / <1.7	230 / 230	150 / 150	8.2 / 8.5	<1.7 / 1.7	<1.7 / 1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<6.7 / <6.7	<1.7 / <1.7	<3.3 / <3.3	389	0.045	<0.025	5.2	1.2 / 1.1	
	7/7/2010	<2.5 / <2.0	190 / 190	340 / 300	18 / 17	<2.5 / <2.0	21 / 20	<2.5 / <2.0	<2.5 / <2.0	<2.5 / 2.6	<2.5 / <2.0	<2.5 / <2.0	<10 / <8.0	<2.5 / <2.0	<5.0 / <4.0	572	0.42	<0.025	14	0.93 / 0.99	
	10/21/2010	<2.5 / <2.0	160 / 150	360 / 350	20 / 19	3.5 / 2.8	52 / 54	<2.5 / <2.0	3.0 / 2.7	7.5 / 7.6	<2.5 / <2.0	<2.5 / <2.0	<10 / <8.0	<2.5 / <2.0	<5.0 / <4.0	608	1.6	<0.025	110	1.2 / 1.3	
	2/1/2011	<2.5 / <2.0	250 / 220	27 / 20	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<10 / <8.0	<2.5 / <2.0	<5.0 / <4.0	277	0.054	<0.025	0.32	0.70 / 0.73	
	4/14/2011	<2.5 / <2.0	270 / 280	14 / 14	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<10 / <8.0	<2.5 / <2.0	<5.0 / <4.0	294	0.039	<0.025	0.15	0.68 / 0.59	
	7/22/2011	<2.5 / <2.0	250 / 280	6.4 / 7.6	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<2.5 / <2.0	<10 / <8.0	<2.5 / <2.0	<5.0 / <4.0	288	0.050	<0.025	0.21	0.70 / 0.73	
	10/26/2011	<1.7 / <2.0	240 / 260	6.9 / 7.4	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<1.7 / <2.0	<6.7 / <8.0	<1.7 / <2.0	<3.3 / <4.0	267	0.30	0.027	1.7	0.57 / 0.56	
	2/8/2012	<1.7 / <1.7	250 / 290	6.1 / 6.3	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<1.7 / <1.7	<6.7 / <6.7	<1.7 / <1.7	<3.3 / <3.3	296	0.062	0.0087 J	1.6	<0.50 / <0.50	
	4/19/2012	<1.7 / <2.5	270 / 300	5.																	

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)	
DW-1 <sup>4</sup>	12/6/2005	<17	440	3,700	110	<17	32	<17	<17	<17	<17	<17	<17	<33	4,282	--	--	--	--		
	2/14/2006	<31	540	5,900	39	<31	<31	<31	<31	<31	<31	<31	<31	<63	6,479	0.18	0.85	7.7	1.8		
	5/3/2006	<36	<36	28,000	110	73	4,100	<36	<36	<36	<36	<36	<36	<71	32,283	14	2.1	3,600	140		
	2/12/2007	<0.5	1.2	6	<0.5	<0.5	8.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<1	17	82	0.74	22,000	32		
	4/11-13/2007	<5.0	310	3,200	17	8.8	290	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	3,826	190	0.65	6,700	14		
	4/30/2007	<17	<17	2,800	<17	<17	300	<17	<17	<17	<17	<17	<17	<33	3,100	400	0.83	8,900	35		
	5/31/2007	<10 / <20	<10 / <20	2,200 / 2,500	12 / <20	<10 / <20	370 / 320	<10 / <20	<10 / <20	<10 / <20	<10 / <20	<10 / <20	<10 / <20	<10 / <20	<20 / <40	2,882	270 / 340	0.82 / 0.91	9,100 / 10,000	18/39	
	6/27/2007	<20	<20	2,400	21.0	<20	580	<20	<20	<20	<20	<20	<20	<40	3,001	250	0.31	12,000	750		
	9/14/2007	<20	<20	2,700	22	<20	930	<20	<20	<20	<20	<20	<20	<40	3,652	310	2.4	15,000	21,000		
	10/15/2007	<13	<13	1,200	<13	<13	820	<13	<13	<13	<13	<13	<13	<25	2,020	260	1.5	13,000	320		
	11/1/2007	<6.3	<6.3	900	20	<6.3	760	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	<13	1,680	320	2.7	12,000	100		
	11/20/2007	<3.1	<3.1	520	7.0	<3.1	340	<3.1	<3.1	<3.1	<3.1	<3.1	<3.1	<6.3	867	340 B	5.4	14,000	46		
	12/18/2007	4.5	2.1	230	3.8	<2.0	160	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	400	270	3.7	13,000	120		
	1/23/2008	<0.5	3.3	290	5.7	0.8	180	1.2	<0.5	0.6	<0.5	<0.5	<0.5	<1.0	482	220	6.3	7,700	14		
	7/21/2008	<6.3	<6.3	<6.3	<6.3	<6.3	51	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	<13	51	62	3.3	14,000	33		
	10/7/2008	<1.3	2.5	1.6	2.1	<1.3	40	<1.3	<1.3	2.7	<1.3	<1.3	<5.0	<1.3	<2.5	49	74	12	18,000	36	
	2/11/2009	<0.5	<0.5	1.1	0.9	<0.5	1.7	<0.5	2.3	1.5	<0.5	<0.5	<2.0	<0.5	<1.0	7.5	1.1	140	17,000	35	
	6/1/2009	<0.5	0.6	2.3	0.6	<0.5	3.6	<0.5	4.4	1.2	<0.5	<0.5	<2.0	<0.5	<1.0	13	11	280	20,000	21	
	7/13/2009	<0.5	<0.5	1.9	0.5	<0.5	2.8	<0.5	4	1.1	<0.5	<0.5	<2.0	<0.5	<1.0	10	1.6	240	19,000	24	
	10/16/2009	<0.5	<0.5	0.8	0.8	<0.5	1.5	<0.5	4.2	1.4	<0.5	<0.5	<2.0	<0.5	<1.0	8.7	3.6	390	24,000	28	
	2/18/2010	<0.5	1.5	1.3	<0.5	<0.5	1.8	<0.5	3.3	0.8	<0.5	<0.5	<2.0	<0.5	<1.0	8.7	0.69	81	14,000	14	
	4/23/2010	<0.5	2.4	2.0	0.8	<0.5	2.7	<0.5	2.6	0.8	<0.5	<0.5	<2.0	<0.5	<1.0	11	1.3	82	12,000	17	
	7/7/2010	<0.5	1.7	1.8	3.6	<0.5	5.4	<0.5	1.6	0.8	<0.5	<0.5	<2.0	<0.5	<1.0	15	1.3	81	11,000	21	
	10/21/2010	<0.5	0.6	1.2	10	<0.5	3.1	<0.5	2.6	0.7	<0.5	<0.5	<2.0	<0.5	<1.0	18	0.52	170	19,000	23	
	2/2/2011	<0.5	<0.5	1.2	23	<0.5	2.7	<0.5	2.3	0.8	<0.5	<0.5	<2.0	<0.5	<1.0	30	0.48	120	11,000	16	
	4/15/2011	<0.5	<0.5	1.3	38	<0.5	2.5	<0.5	2.3	0.8	<0.5	<0.5	<2.0	<0.5	<1.0	45	0.30	310	13,000	17	
	7/22/2011	<0.5	0.7	98	41	<0.5	140	<0.5	3.1	0.7	<0.5	<0.5	<2.0	<0.5	<1.0	284	58	570	17,000	15	
	10/26/2011	<1.3	18	7.4	<1.3	<1.3	4.0	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	29	1.7	9.0	7,600	1,200	
	2/9/2012	<0.50	<0.50	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<1.0	1.1	1.7	0.25	1,300	5.1	
	4/19/2012	<0.50	0.50	51	1.1	<0.50	33	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<1.0	86	17	24	12,000	6.6	
	7/24/2012	<0.50	<0.50	1.1	1.0	<0.50	20	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<1.0	22	8.6	130	18,000	8.3	
	10/11/2012	<0.50	0.90	1.8	<0.50	<0.50	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<1.0	5.3	1.4	29	3,700	9.6	
	3/12/2013	<50	64	<50	<50	<50	<50	<50	<50	<50	<50	<50	<200	<50	<100	64	1.6	2.2	11,000	1,100	
	6/4/2013	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<100	<25	<50	0	4.2	6.3	13,000	400
	8/29/2013	<0.5	<0.5	0.7	<0.5	0.9	<0.5	0.9	<0.5	0.6	0.8	<0.5	<0.5	<2.0	<0.5	<1.0	3.0	2.4	33	16,000	70

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
28-MW <sup>4</sup>	12/6/2005	<0.5	10	26	20	<0.5	28	1.5	7.2	13	<0.5	1.7	<0.5	<0.5	<1	107	33	0.063	1,400	4.3
	2/14/2006	<0.5	<0.5	4.8	11	<0.5	4.3	<0.5	8.8	16	<0.5	1.0	<0.5	<0.5	<1.0	46	52	0.16	7,700	74
	5/3/2006	<0.5	<0.5	0.8	5.0	<0.5	0.7	<0.5	28	3.2	<0.5	1.5	<0.5	<0.5	<1	39	2.0	0.30	15,000	200
	8/2/2006	<0.5	1.3	1.7	5.3	<0.5	1.2	<0.5	41	5.8	<0.5	2.4	<0.5	<0.5	<1	59	1.5J	0.048J	26,000J	1,000
	11/13/2006	<0.5	1.5	28	18	<0.5	38	0.5	34	7.0	<0.5	1.3	<0.5	<0.5	<1	128	31	0.33	14,000	49
	2/12/2007	<0.5	<0.5	0.7	4	<0.5	1.2	<0.5	32	6.5	<0.5	1.4	<0.5	<0.5	<1	46	22	0.44	16,000	45
	5/31/2007	<0.5	0.6	<0.5	1.7	<0.5	0.6	<0.5	29	5.3	<0.5	1.1	<0.5	<0.5	<1	38	16	0.52	15,000	41
	8/21/2007	<0.5	<0.5	1.1	2.6	<0.5	2.7	<0.5	31	4.7	<0.5	1.2	<0.5	<0.5	1.2J	45	29	0.89	14,000	57
	11/1/2007	<0.5	<0.5	0.7	1.4	<0.5	1.0	<0.5	32	4.8	<0.5	1.3	<0.5	<0.5	<1.0	41	9.4	1.0	14,000	88
	2/5/2008	<0.5	<0.5	16	5.2	<0.5	23	<0.5	25	5.3	<0.5	1.1	<0.5	<0.5	<1.0	76	19	1.4	8,800	77
	5/2/2008	<0.5	<0.5	59	6.7	0.6	47	<0.5	24	4.5	<0.5	1.1	<0.5	<0.5	<1.0	143	38	7.1	15,000	50
	7/18/2008	<0.5	<0.5	0.6	2.3	<0.5	1.2	<0.5	17	4.2	<0.5	1	<0.5	<0.5	2.1	28	25	9.7	18,000	32
	10/7/2008	<0.5	0.7	1.9	2.7	<0.5	4.3	<0.5	17	5.4	<0.5	0.9	<2.0	<0.5	2.7	36	16	13	14,000	21
	2/10/2009	<0.5	1.1	28	5.9	<0.5	44	<0.5	16	7.1	<0.5	0.9	<2.0	<0.5	3.3	106	11	12	7,900	11
	5/27/2009	<0.5	0.8	45	9.1	<0.5	110	<0.5	15	6.6	<0.5	0.9	<2.0	<0.5	4.9	192	21	11	5,900	10
	7/13/2009	<0.5	0.6	30	8.4	<0.5	95	<0.5	14	8.0	<0.5	1.0	<2.0	<0.5	4.4	161	12	7.8	5,100	12
	10/16/2009	<0.5	0.6	12	4.7	<0.5	43	<0.5	16	8.1	<0.5	1.0	<2.0	<0.5	8.8	94	11	13	11,000	12
	2/18/2010	<0.5	0.6	22	6.7	<0.5	48	<0.5	12	7.3	<0.5	1.0	<2.0	<0.5	4.5	102	7.0	4.2	4,700	9.8
	4/22/2010	<0.5	0.6	22	5.1	<0.5	50	<0.5	11	7.0	<0.5	0.7	<2.0	<0.5	4.4	101	6.9	3.1	3,200	7.8
	7/6/2010	<0.5	<0.5	18	2.4	<0.5	92	<0.5	10	7.0	<0.5	0.8	<2.0	<0.5	3.9	134	8.4	1.8	2,000	5.8
	10/21/2010	<0.5	<0.5	10	1.0	<0.5	73	<0.5	8.1	6.2	<0.5	0.6	<2.0	<0.5	2.2	101	7.7	1.0	1,300	5.1
	2/1/2011	<0.5	<0.5	6.0	1.2	<0.5	47	<0.5	7.2	7.1	<0.5	0.8	<2.0	<0.5	2.4	72	3.9	1.2	1,100	5.5
	4/14/2011	<0.5	<0.5	5.2	0.7	<0.5	39	<0.5	6.1	5.7	<0.5	0.6	<2.0	<0.5	2.2	60	2.2	1.1	900	6.2
	7/22/2011	<0.5	<0.5	3.3	<0.5	<0.5	40	<0.5	5.8	6.1	<0.5	0.6	<2.0	<0.5	<1.0	56	3.2	0.55	470	3.9
	10/26/2011	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	6.8	6.1	<0.5	0.6	<2.0	<0.5	1.9	17	0.61	4.0	12,000	55
	2/8/2012	<0.50	<0.50	0.7	<0.50	<0.50	4.8	<0.50	9.4	8.3	<0.50	0.70	<2.0	<0.50	<1.0	24	0.69	11	13,000	12
	4/20/2012	<0.50	<0.50	1.0	0.70	<0.50	6.6	<0.50	7.8	7.5	<0.50	0.70	<2.0	<0.50	<1.0	24	0.42	3.5	7,200	7.0
	7/24/2012	<0.50	<0.50	0.9	<0.50	<0.50	8.2	<0.50	8.1	7.0	<0.50	0.70	<2.0	<0.50	<1.0	25	0.64	3.1	7,200	6.7
	10/10/2012	<0.50	<0.50	<0.50	<0.50	<0.50	2.8J	<0.50	8.5J	7.5J	<0.50	0.70J	<2.0	<0.50	1.2J	21	0.16	2.3	4,600	6.0
	3/12/2013	<0.5	<0.5	0.5	<0.5	<0.5	0.7	<0.5	9.8	7.5	<0.5	0.7	<1.0	<0.5	<1.0	19	0.30	9.2	14,000	18
	6/5/2013	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	9.8	7.0	<0.5	0.8	<2.0	<0.5	<1.0	18	0.05	2.4	9,800	9.0
	8/30/2013	<0.5	<0.5	1.2	<0.5	<0.5	4.5	<0.5	6.8	4.8	<0.5	0.6	<2.0	<0.5	<1.0	18	0.57	2.0	4,500	7.4
	10/17/2013	<0.5	<0.5	1.7	<0.5	<0.5	8.6	<0.5	7.2	5.2	<0.5	0.6	<2.0	<0.5	<1.0	23	0.66	1.4	2,300	5.8
	3/4/2014	<0.5	<0.5	0.7	<0.5	<0.5	3.7	<0.5	6.6	5.2	<0.5	0.5	<2.0	<0.5	<1.0	17	0.46	4.7	12,000	7.9
	5/28/2014	<0.5	<0.5	0.6	<0.5	<0.5	1.5	<0.5	6.3	4.9	<0.5	0.5	<2.0	<0.5	<1.0	14	0.07	3.3	11,000	8.

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)	
PMW-2-1	12/7/2005	<31	82	6,700	72	<31	2,300	<31	<31	<31	<31	<31	<31	<31	<63	9,154	0.81	0.24	2.4	2.0	
	2/14/2006	<71	140	7,500	<71	<71	1,600	<71	<71	<71	<71	<71	<71	<71	<140	9,240	16	0.49	3.8	2.4	
	5/2/2006	<63	140	6,400	<63	<63	1,500	<63	<63	<63	<63	<63	<63	<63	<130	8,040	29	1.90	11	3.3	
	8/2/2006	<25	130	6,700	42	<25	2,200	<25	<25	<25	<25	<25	<25	<25	<50	9,072	48 J	2.1 J	1,400 J	1.9	
	11/13/2006	<63	5,700	<63	<63	2,800	<63	<63	<63	<63	<63	<63	<63	<63	<130	8,500	130	2.1	6,800	3.2	
	2/12/2007	<50	<50	6,300	74	<50	2,600	<50	<50	<50	<50	<50	<50	<50	<100	8,974	160	1.7	8,900	2.6	
	5/31/2007	<42	48	5,100	46	<42	2,400	<42	<42	<42	<42	<42	<42	<42	<83	7,594	170	1.8	11,000	2.3	
	8/21/2007	<42	64	6,500	54	<42	2,600	<42	<42	<42	<42	<42	<42	<42	<83	9,218	140	1.6	9,400	2.1	
	11/1/2007	<31	57	5,700	62	<31	2,500	<31	<31	<31	<31	<31	<31	<31	<63	8,319	110	1.5	8,000	1.6	
	2/5/2008	<42	<42	4,600	55	<42	1,200	<42	<42	<42	<42	<42	<42	<42	<83	5,855	71	0.9	4,500	1.4	
	5/2/2008	<42	66	5,500	51	<42	2,400	<42	<42	<42	<42	<42	<42	<42	<83	8,017	320	1.8	8,200	2.5	
	7/18/2008	<42	72	6,300	55	<42	2,300	<42	<42	<42	<42	<42	<42	<42	<83	8,727	360	2.5	12,000	2	
	10/7/2008	<42	58	4,900	<42	<42	1,700	<42	<42	<42	<42	<42	<42	<170	<42	<83	6,658	340	2.7	14,000	2.3
	2/10/2009	<42	68	4,800	46	<42	1,500	<42	<42	<42	<42	<42	<42	<170	<42	<83	6,414	280	2.7	13,000	1.3
	6/1/2009	<42	58	4,500	<42	<42	1,500	<42	<42	<42	<42	<42	<42	<170	<42	<83	6,058	260	2.6	12,000	1.8
	7/13/2009	<42	71	5,500	74	<42	1,700	<42	<42	<42	<42	<42	<42	<170	<42	<83	7,345	190	1.6	11,000	1.8
	10/16/2009	<42	75	5,600	49	<42	1,500	<42	<42	<42	<42	<42	<42	<170	<42	<83	7,224	270	2.7	14,000	1.9
	2/18/2010	<42	61	5,600	76	<42	1,800	<42	<42	<42	<42	<42	<42	<170	<42	<83	7,537	270	2.9	16,000	2
	4/23/2010	<42	75	6,500	47	<42	1,600	<42	<42	<42	<42	<42	<42	<170	<42	<83	8,222	260	2.5	14,000	1.6
	7/6/2010	<42	69	6,100	54	<42	2,000	<42	<42	<42	<42	<42	<42	<170	<42	<83	8,223	260	2.7	14,000	1.4
	10/21/2010	<42	79	6,800	54	<42	1,800	<42	<42	<42	<42	<42	<42	<170	<42	<83	8,733	240	2.5	14,000	1.6
	2/1/2011	<42	70	6,800	47	<42	1,700	<42	<42	<42	<42	<42	<42	<170	<42	<83	8,617	220	2.2	12,000	1.9
	4/14/2011	<42	83	7,300	62	<42	1,800	<42	<42	<42	<42	<42	<42	<170	<42	<83	9,245	200	1.9	11,000	1.6
	7/22/2011	<42	66	5,600	43	<42	1,500	<42	<42	<42	<42	<42	<42	<170	<42	<83	7,209	230	2.1	11,000	1.7
	10/26/2011	<36	67	5,600	85	<36	1,500	<36	<36	<36	<36	<36	<36	<140	<36	<71	7,252	220	2.4	11,000	1.6
	2/9/2012	<36	61	6,500	<36	<36	1,400	<36	<36	<36	<36	<36	<36	<140	<36	<71	7,961	320	24	12,000	1.5
	4/19/2012	<36	51	5,700	63	<36	1,600	<36	<36	<36	<36	<36	<36	<140	<36	<71	7,414	360	17	12,000	2.2
	7/23/2012	<36	60	5,500	140	<36	1,600	<36	<36	<36	<36	<36	<36	<140	<36	<71	7,300	360	21	10,000	1.5
	10/11/2012	<50	72	7,100	55	<50	1,900	<50	<50	<50	<50	<50	<50	<200	<50	<100	9,127	310	16	9,400	1.6
	3/12/2013	<42	51	4,400	<42	<42	1,600	<42	<42	<42	<42	<42	<42	<83	<42	<83	6,051	380	21	12,000	2.4
	6/4/2013	<36	57	5,600	46	<36	1,600	<36	<36	<36	<36	<36	<36	<140	<36	<71	7,303	380	23	14,000	2.3
	8/29/2013	<36	60	5,000	<36	<36	1,400	<36	<36	<36	<36	<36	<36	<140	<36	<71	6,460	360	24	13,000	2.1
	10/17/2013	<36	57	6,500	51	<36	2,100	<36	<36	<36	<36	<36	<36	<140	<36	<71	8,708	370	24	13,000	2.3
	3/5/2014	<36	60	5,000	37	<36	1,500	<36	<36	<36	<36	<36	<36	<140	<36	<71	6,597	320	24	14,000	1.4
	5/27/2014	<36	50	4,200	55	<36	1,000	&													

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
PMW-2-3	12/7/2005	<3.1	290	440	7.4	<3.1	24	<3.1	<3.1	<3.1	<3.1	<3.1	4.8	<3.1	<6.3	766	22	1.3	6.0	0.66
	2/14/2006	<3.1	320	480	3.5	<3.1	16	<3.1	<3.1	<3.1	<3.1	<3.1	11	<3.1	<6.3	831	0.065	0.19	3.0	0.78
	5/3/2006	<2.5	300	420	8.4	<2.5	16	<2.5	<2.5	<2.5	<2.5	<2.5	5.3	<2.5	<5	750	0.30	0.09	16	0.57
	8/2/2006	<1.3	260	330	1.4	<1.3	15	<1.3	<1.3	<1.3	<1.3	<1.3	5.0	<1.3	<2.5	611	0.520 J	0.096 J	46 J	<0.50
	11/13/2006	<2.5	280	360	3.6	<2.5	32	<2.5	<2.5	<2.5	<2.5	<2.5	6.0	<2.5	<5	682	1.5	0.09	44	0.60
	2/12/2007	<2.5	270	400	5.8	<2.5	32	<2.5	<2.5	<2.5	<2.5	<2.5	4.7	<2.5	<5	713	1.9	0.12	49	0.66
	5/31/2007	<2.5 / <2.5	270 / 270	380 / 370	3.9 / 3.6	<2.5 / <2.5	40 / 30	<2.5 / <2.5	<2.5 / <2.5	<2.5 / <2.5	<2.5 / <2.5	<2.5 / <2.5	5.6 / 6.4	<2.5 / <2.5	<5 / <5	700	3.1	0.066	63	0.53
	8/21/2007	<2.5 / <2.5	270 / 270	360 / 340	6.4 / 3.9	<2.5 / <2.5	20 / 22	<2.5 / <2.5	<2.5 / <2.5	<2.5 / <2.5	<2.5 / <2.5	<2.5 / <2.5	5.2 / 4.8	<2.5 / <2.5	<5.0 / <5.0	664	1.6	0.11	52	0.67
	11/1/2007	<2.0	230	280	11	<2.0	16	<2.0	<2.0	<2.0	<2.0	<2.0	8.3	<2.0	<4.0	545	1.5	0.048	31	<0.50
	2/5/2008	<2.0	240	230	7.0	<2.0	11	<2.0	<2.0	<2.0	<2.0	<2.0	3.0	<2.0	<4.0	491	0.85	0.033	14	<0.50
	5/2/2008	<2.0	250	230	2.1	<2.0	21	<2.0	<2.0	<2.0	<2.0	<2.0	3.9	<2.0	<4.0	507	2.3	0.041	19	0.67
	7/18/2008	<1.3	250	230	1.8	<1.3	17	<1.3	<1.3	<1.3	<1.3	<1.3	4.9	<1.3	<2.5	504	3.1	0.034	22	<0.50
	10/7/2008	<2.5	250	220	3.0	<2.5	20	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<5.0	493	3.3	0.049	26	0.64
	2/12/2009	<1.7	220	160	<1.7	<1.7	13	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	393	2.1	0.042	20	<0.50
	6/1/2009	<1.7	240	170	3.8	<1.7	22	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	436	2.6	0.048	22	0.59
	7/13/2009	<1.7	240	170	3.1	<1.7	17	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	430	2.1	0.034	19	0.69
	10/16/2009	<1.7	260	160	4.8	<1.7	13	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	438	2.5	0.052	28	0.70
	2/18/2010	<1.7	250	170	3.4	<1.7	14	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	437	1.8	0.030	15	0.74
	4/23/2010	<1.7	290	210	3.5	<1.7	12	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	516	6.7	0.044	25	0.68
	7/6/2010	<1.7	270	200	2.0	<1.7	22	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	494	3.2	0.036	24	0.85
	10/21/2010	<1.7	260	220	5.8	<1.7	21	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	507	3.1	0.031	17	0.51
	2/2/2011	<1.7	250	180	4.3	<1.7	14	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	448	2.1	<0.025	13	0.58
	4/14/2011	<1.7	250	240	6.6	<1.7	33	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	530	5.5	<0.025	28	0.65
	7/22/2011	<1.7	210	170	4.5	<1.7	19	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	404	3.7	0.044	19	0.77
	10/26/2011	<1.7	200	180	2.8	<1.7	40	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	423	2.5	0.070	22	0.53
	2/9/2012	<1.7	260	180	3.7	<1.7	15	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	459	2.7	0.033	15	<0.50
	4/19/2012	<1.7	210	170	6.4	1.7	38	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	426	7.0	0.055	44	<0.50
	7/23/2012	<1.3	220	160	3.9	<1.3	43	<1.3	<1.3	<1.3	<1.3	<1.3	7.3	<1.3	<2.5	434	9.3	0.083	81	0.52
	10/11/2012	<1.7	220	150	4.3	<1.7	28	<1.7	<1.7	<1.7	<1.7	<1.7	<6.7	<1.7	<3.3	402	6.0	0.082	56	0.59
	3/12/2013	<0.7	240	110	2.7	1.5	17	<0.7	<0.7	<0.7	<0.7	<0.7	4.3	<0.7	<1.4	376	2.2	0.044	16	0.84
	6/4/2013	<1.3	240	120	1.8	<1.3	14	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	376	6.4	0.060	29	0.62
	8/29/2013	<1.3	210	110	2.0	<1.3	9.6	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	332	1.8	0.042	13	0.69
	10/17/2013	1.3	230	120	2.4	<1.3	18	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	372	2.5	0.059	21	0.78
	3/5/2014	<1.3	250	120	3.0	<1.3	34	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	407	7.1	0.079	51	<0.50

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
DW-2 <sup>4</sup>	2/14/2006	<0.7	3.0	110	0.8	<0.7	<0.7	<0.7	2.5	<0.7	<0.7	<0.7	<0.7	<0.7	116	0.56	0.26	1,300	160	
	5/3/2006	<0.7	5.9	2.8	<0.7	<0.7	<0.7	<0.7	1.0	<0.7	<0.7	<0.7	<0.7	<0.7	10	0.46	0.13	1,200	1,700	
	2/21/2007	<0.5	1.4	3.7	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	5.7	0.51	0.066	20,000	72	
	5/31/2007	<0.5	2.3	5.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	9.4	0.21	0.45	19,000	350	
	7/21/2008	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	0	2.0	0.028	6,300	35	
	10/7/2008	<0.5	0.6	<0.5	<0.5	<0.5	1	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	2.2	0.24	<0.025	5,800	48	
	2/11/2009	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	0.20	0.12	5,900	30	
	5/27/2009	<0.5	0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	0.24	0.81	13,000	27	
	7/13/2009	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	0.052	0.56	11,000	22	
	10/16/2009	<0.5	<0.5	1.1	<0.5	<0.5	1.1	<0.5	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	3.2	0.22	2.3	14,000	24	
	2/19/2010	<0.5	0.6	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	0.054	1.5	7,400	17	
	4/23/2010	<0.5	0.6	0.8	<0.5	<0.5	0.9	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	2.9	0.12	1.9	7,100	21	
	7/7/2010	<0.5	0.6	0.9	0.7	<0.5	0.5	<0.5	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	3.7	0.065	4.7	8,700	25	
	10/21/2010	<0.5	0.5	1.1	0.9	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	3.2	0.10	0.49	860	23	
	2/2/2011	<0.5	0.6	0.9	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	2.3	0.042	0.62	1,000	15	
	4/15/2011	<0.5	<0.5	0.7	2.1	<0.5	<0.5	<0.5	0.7	1.1	<0.5	<0.5	<0.5	<0.5	4.6	<0.025	0.86	610	11	
	7/22/2011	<0.5	0.5	0.9	5.9	<0.5	0.9	<0.5	2.0	3.2	<0.5	<0.5	<0.5	<0.5	1.3	0.13	8.4	2,500	9.4	
	10/26/2011	<0.5	1.3	0.7	1.9	<0.5	<0.5	<0.5	0.9	1.8	<0.5	<0.5	<0.5	<0.5	6.6	0.22	0.64	3,500	630	
	2/9/2012	<0.50	<0.50	0.90	<0.50	<0.50	<0.50	<0.50	0.5	1.4	<0.50	<0.50	<0.50	<0.50	2.8	0.21	0.078	5,300	540	
	4/19/2012	<0.50	0.80	0.80	0.70	<0.50	<0.50	<0.50	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	3.6	0.21	0.80	10,000	32	
	7/24/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0	0.10	0.58	2,900	23	
	10/10/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0	0.029	0.028	1.2	20	
	3/12/2013	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0	0.14	3.7	8,500	65	
	6/4/2013	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<14	<3.6	<7.1	0	0.061	0.066
	8/29/2013	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	0.16	0.35	11,000	33	
	10/17/2013	<0.5	2.0	<0.5	<0.5	1.3	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	4.0	0.17	0.43	16,000	32	
	3/4/2014	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	0.9	<0.5	<0.5	<0.5	<0.5	2.6	0.40	0.093	16,000	64	
	5/28/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	0.11	0.40	14,000	15	
	8/18/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	0.5	<0.5	<0.5	<0.5	<0.5	1.8	0.11	0.54	6,800	8.2	
	10/14/2014	<0.5	0.5	<0.5	<0.5	0.7	<0.5	<0.5	0.9	0.7	<0.5	<0.5	<0.5	<0.5	2.8	0.21	1.1	16,000	14	
	2/5/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.5	<0.5	<0.5	<0.5	<0.5	1.1	0.03	1.7	9,400	8.6	
	5/11/2015	<0.5	1.2	1.4	0.9	<0.5	3.1	<0.5	2.4	0.6	<0.5	<0.5	<0.5	<0.5	10	1.7	250	18,000	16	
	8/6/2015	<0.5	0.6	1.0	0.7	<0.5	<0.5	<0.5	1.4	1.0	<0.5	<0.5	<0.5	<0.5	4.7	0.12	3.4	12,000	12	
	10/12/2015	<0.5	0.8	0.9	<0.5	<0.5	<0.5	<0.5	1.3	0.8	<0.5	<0.5	<0.5	<0.5	3.8	0.10	3.8	12,000	11	
	2/29/2016	<0.5	3.3	4.0	0.5	<0.5	2.0	<0.5	3.0	2.3	<0.5	<0.5	<0.5	<						

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
X2B1 <sup>4</sup>	2/7/2008	<3.1	240	420	6.3	<3.1	63	<3.1	<3.1	<3.1	<3.1	<3.1	<3.1	<3.1	<6.3	729	8.8	0.12	310	1.2
	2/28/2008	<2.5	150	360	9.2	<2.5	73	<2.5	5.3	7.2	<2.5	<2.5	<2.5	<2.5	<5.0	605	36	1.4	6,000	20
	3/27/2008	<2.5	330	980	22	4.4	160	<2.5	<2.5	<2.5	<2.5	<2.5	<7.1	<2.5	<5.0	1,496	25	0.31	730	1.1
	5/2/2008	<6.3	380	1,100	18	<6.3	140	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	<13	<6.3	1,638	4.7	0.14	140	1.4
	7/18/2008	<1.3	3.8	300	4.7	<1.3	160	<1.3	<1.3	<1.3	<1.3	<1.3	2.4	<1.3	<2.5	471	51	0.87	210	0.82
	10/7/2008	<2.5	30	360	5.6	<2.5	200	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<5.0	596	44	0.42	68	1.5
	2/11/2009	<2.5	22	660	15	<2.5	580	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<5.0	1,277	140	0.40	310	1.4
	6/1/2009	<8.3	53	990	17	<8.3	570	<8.3	<8.3	<8.3	<8.3	<8.3	<33	<8.3	<17	1,630	110	0.32	260	1.1
	7/13/2009	<8.3	100	1,200	23	<8.3	530	<8.3	<8.3	<8.3	<8.3	<8.3	<33	<8.3	<17	1,853	73	0.26	230	1.1
	10/16/2009	<8.3	71	1,100	17	<8.3	510	<8.3	<8.3	<8.3	<8.3	<8.3	<33	<8.3	<17	1,698	73	0.41	280	1.2
	2/18/2010	<8.3	57	830	20	<8.3	330	<8.3	<8.3	<8.3	<8.3	<8.3	<33	<8.3	<17	1,237	26	0.20	150	2.2
	4/23/2010	7.7	80	640	9.3	<5.0	220	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<10	957	25	0.17	130	1.2
	7/6/2010	<5.0	110	920	14	<5.0	520	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<10	1,564	32	0.22	200	0.87
	10/21/2010	<7.1	59	470	13	<7.1	690	<7.1	<7.1	<7.1	<7.1	<7.1	<29	<7.1	<14	1,232	74	0.47	260	1.1
	2/1/2011	<3.6	50	370	6.7	<3.6	140	<3.6	<3.6	<3.6	<3.6	<3.6	<14	<3.6	<7.1	567	13	0.18	80	0.92
	4/14/2011	<1.3	23	180	5.2	<1.3	130	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	338	12	0.27	34	0.96
	7/22/2011	<5.0	150	950	14	<5.0	420	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<10	1,534	21	0.43	92	0.96
	10/27/2011	<2.5	140	420	6.1	<2.5	130	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<5.0	696	21	1.1	330	0.65
	11/21/2011	0.87	470	1,100	10	4.2	150	0.91	<0.5	0.78	<0.5	<0.5	6.1	1.2	<1.0	1,744	13	1.8	540	0.57
	2/9/2012	<2.5	330	1,200	16	3.8	160	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<5.0	1,710	23	3.2	1,000	0.55
	4/19/2012	<5.0	100	670	13	<5.0	110	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<10	893	15	0.40	140	0.64
	7/23/2012	<5.0	68	860	13	<5.0	210	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<10	1,151	18	0.52	150	0.72
	10/11/2012	<1.3	23	360	8.1	<1.3	170	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	561	13	0.45	57	0.7
	12/12/2012	<6.3	360	890	8.0	<6.3	100	<6.3	<6.3	<6.3	<6.3	<6.3	12	<6.3	<13	1,370	19	1.8	600	0.70
	1/28/2013	<5.0	340	890	15	<5.0	95	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	1,340	15	1.5	1,100	0.81
	2/20/2013	<6.3	320	860	11	<6.3	76	<6.3	<6.3	<6.3	<6.3	<6.3	<13	<6.3	<13	1,267	7.2	1.5	1,100	0.80
	3/12/2013	<8.3	230	860	18	<8.3	100	<8.3	<8.3	<8.3	<8.3	<8.3	<33	<8.3	<17	1,208	6.9	4.6	2,600	1.4
	6/4/2013	<8.3	110	1,200	19	<8.3	82	<8.3	<8.3	<8.3	<8.3	<8.3	<33	<8.3	<17	1,411	1.6	1.1	450	1.0
	8/29/2013	<7.1	250	1,100	15	<7.1	66	<7.1	<7.1	<7.1	<7.1	<7.1	<29	<7.1	<14	1,431	4.1	0.64	280	2.0
	10/17/2013	<7.1	100	1,700	52	<7.1	200	<7.1	<7.1	<7.1	<7.1	<7.1	<29	<7.1	<14	2,052	7.4	0.87	440	1.5
	5/27/2014	<1.0	34	3.3	<1.0	30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	2.1	69	470	6.9	7,000	270
	8/18/2014	2.7	270	11	<1.0	120	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<2.0	404	150	9.6	9,200	4,200
	10/14/2014	<2.5	130	5.3	<2.5	34	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<5.0	169	47	9.9	7,200	3,700
	2/5/2015	<2.5	<2.5	<2.5	<2.5	2.6	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<5.0	2.6	4.1	5.6	18,000	2,300
	5/11/2015	<0.5	<0.5	1.8																

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
X2A <sup>4</sup>	5/31/2007	<0.5	0.6	1.7	5.7	<0.5	1.7	<0.5	56	30	<0.5	3.3	<0.5	<0.5	4.8	104	24	3.6	15,000	14
	8/21/2007	<0.5 / <0.5	10 / 10	18 / 18	7.5 / 7.7	<0.5 / <0.5	83 / 74	0.5 / 0.5	35 / 35	19 / 18	<0.5 / <0.5	2.0 / 2.1	<0.5 / <0.5	<0.5 / <0.5	7.0 J / 4.0 J	182	220	3.6	7,100	8.9
	11/1/2007	<0.5 / <0.5	0.7 / 0.8	40 / 40	15 / 14	<0.5 / <0.5	210 / 170	0.9 / 0.9	35 / 34	18 / 20	<0.5 / <0.5	1.0 / 1.0	<0.5 / <0.5	<0.5 / <0.5	3.6 / 4.8	328	280 / 280	3.6 / 3.3	9,200 / 8,000	8.3 / 8.2
	2/7/2008	<0.5	2.9	36	17	<0.5	96	<0.5	24	21	<0.5	2.2	<0.5	<0.5	<1.0	199	51	3.3	9,300	23
	2/28/2008	<0.5	1.6	60	14	<0.5	73	<0.5	20	26	<0.5	2.3	<0.5	<0.5	1.3	198	48	2.0	12,000	110
	3/27/2008	<0.5	0.9	110	24	<0.5	140	<0.5	30	22	<0.5	1.5	<0.5	<0.5	2.0	330	54	1.6	10,000	30
	5/2/2008	2.9	210	960	27	4.1	150	<2.5	<2.5	6.5	<2.5	<2.5	<2.5	<2.5	<5.0	1,361	13	0.38	1,800	1.8
	7/18/2008	<1.7	<1.7	48	14	<1.7	420	<1.7	6.6	7.9	<1.7	<1.7	<1.7	<1.7	<3.3	497	340	1.1	5,400	6.8
	10/7/2008	<0.5	<0.5	15	12	<0.5	880	1.7	14	10	<0.5	<0.5	<0.5	<0.5	1.1	934	380	3.7	12,000	12
	2/11/2009	<1.7	<1.7	5.9	4.9	<1.7	190	<1.7	10	7.3	<1.7	<1.7	<1.7	<1.7	<3.3	218	190	5.2	7,800	12
	5/27/2009	<1.7	<1.7	8.8	6.6	<1.7	250	<1.7	13	7.1	<1.7	<1.7	<1.7	<1.7	<3.3	286	93	9.0	9,500	8.5
	7/13/2009	<1.7	<1.7	4.3	5.4	<1.7	320	<1.7	15	8.4	<1.7	<1.7	<1.7	<1.7	<3.3	353	79	8.5	10,000	9.1
	10/16/2009	<0.5	<0.5	10	7.6	<0.5	360	1.0	20	13	<0.5	0.5	<2.0	<0.5	<1.0	412	83	11	12,000	7.9
	2/18/2010	<2.5	<2.5	4.0	3.4	<2.5	240	<2.5	17	10	<2.5	<2.5	<10	<2.5	<5.0	274	39	10	7,500	6.9
	4/22/2010	<1.7	<1.7	4.7	2.6	<1.7	250	<1.7	18	12	<1.7	<1.7	<1.7	<1.7	<3.3	287	47	8.6	5,700	5.2
	7/6/2010	<1.7	<1.7	6.6	2	<1.7	580	<1.7	20	13	<1.7	<1.7	<1.7	<1.7	<3.3	622	71	8.5	5,400	4.4
	10/21/2010	<5.0	<5.0	13	<5.0	<5.0	850	<5.0	22	13	<5.0	<5.0	<20	<5.0	<10	898	78	6.3	4,200	4.2
	2/1/2011	<5.0	<5.0	20	<5.0	<5.0	800	<5.0	23	12	<5.0	<5.0	<20	<5.0	<10	855	68	4.7	3,200	3.7
	4/14/2011	<5.0	<5.0	43	<5.0	<5.0	830	<5.0	22	13	<5.0	<5.0	<20	<5.0	<10	908	59	4.0	2,900	3.9
	7/22/2011	<5.0	<5.0	74	<5.0	<5.0	820	<5.0	27	16	<5.0	<5.0	<20	<5.0	<10	937	63	3.7	2,900	3.9
	10/26/2011	<5.0	<5.0	88	<5.0	<5.0	830	<5.0	24	13	<5.0	<5.0	<20	<5.0	<10	955	52	3.4	2,400	3.5
	12/20/2011	<0.5	<0.5	64	5.5	<0.5	96	<0.5	15	14	<0.5	1.2	<0.5	<0.5	<1.0	196	7.4	1.6	4,700	7.0
	2/9/2012	<2.5	<2.5	43	3.9	<2.5	380	<2.5	17	16.0	<2.5	<2.5	<10	<2.5	<5.0	460	64	2.3	5,400	9.4
	4/19/2012	<2.5	<2.5	32	4	<2.5	640	<2.5	15	17	<2.5	<2.5	<10	<2.5	<5.0	708	69	3.1	5,900	11
	7/23/2012	<5.0	<5.0	27	<5.0	<5.0	670	<5.0	17	15	<5.0	<5.0	<20	<5.0	<10	729	73	4.1	5,600	4.7
	10/11/2012	<5.0	<5.0	54	<5.0	<5.0	790	<5.0	21	23	<5.0	<5.0	<20	<5.0	<10	888	90	4.3	4,800	4.1
	12/12/2012	<1.0	<1.0	120	6.2	<1.0	140	<1.0	14	20	<1.0	<1.0	<1.0	<1.0	<2.0	300	9.0	1.4	4,500	6.8
	1/28/2013	<1.0	<1.0	91	5.8	<1.0	120	<1.0	13	18	<1.0	<1.0	<1.0	<1.0	<2.0	248	12	2.9	8,100	8.9
	2/20/2013	<1.0	1.2	17	1.9	<1.0	150	<1.0	10	12	<1.0	<1.0	<1.0	<1.0	<2.0	192	24	4.0	7,300	<0.5
	3/12/2013	<0.5	<0.5	2.9	0.9	<0.5	34	<0.5	16	5.7	<0.5	0.7	<2.0	<0.5	<1.0	60	31	4.2	9,700	170
	6/4/2013	<0.5	<0.5	0.7	<0.5	<0.5	47	<0.5	19	6	<0.5	0.8	<2.0	<0.5	<1.0	74	33	2.6	10,000	10
	8/29/2013	<0.5	<0.5	1.0	<0.5	<0.5	96	<0.5	18	9.7	<0.5	0.6	<2.0	<0.5	<1.0	125	46	2.8	9,300	8.7
	10/17/2013	<0.7	<0.7	<0.7	<0.7	<0.7	140	<0.7	17	14	<0.7	<0.7	<2.9	<0.7	<1.4	171	38	3.6	8,600	8.0
	2/5/2014	<1.0	<1.0	56	3.4	<1.0	130	<1.0	11	12	<1.0	<1.0	<10	<1.0	<2.0	212	6.5	1.1	1,400	3.7
	3/4/2014	<1.0	<1.0	17	<1.0	<1.0	240	<1.0	12	12	<1.0	<1.0	<10	<1.0	<2.0	281	21	1.8	2,000	3.9

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
X1B <sup>1</sup>	12/12/2005	<8.3	360	1,600	29	10	120	<8.3	<8.3	<8.3	<8.3	<8.3	<8.3	<8.3	<17	2,119	--	--	--	0.72
	1/13/2006	5.8	350	1,100	36	7.8	110	2.1	<2.0	9.7	<2.0	<2.0	2.3	<2.0	<4.0	1,624	--	--	--	0.72
	2/10/2006	<8.3	300	940	33	8.7	110	<8.3	<8.3	<8.3	<8.3	<8.3	<8.3	<8.3	<17	1,392	--	--	--	1.5
	4/19/2006	<7.1	340	880	61	<7.1	84	<7.1	<7.1	9.3	<7.1	<7.1	<7.1	<7.1	<14	1,374	--	--	--	2.1
	5/1/2006	7.4	310	970	37	<7.1	120	<7.1	<7.1	9.6	<7.1	<7.1	<7.1	<7.1	<14	1,454	--	--	--	0.73
	7/6/2006	2	290	860	22.0	5.8	75	<5.0	<5.0	7.7	<5.0	<5.0	<5.0	<5.0	<10	1,263	--	--	--	0.71
	8/2/2006	<7.1	240	850	19.0	<7.1	81	<7.1	<7.1	7.6	<7.1	<7.1	<7.1	<7.1	<14	1,198	--	--	--	0.67
	9/18/2006	7.7	270	850	27	7.3	94	<5.0	<5.0	8.5	<5.0	<5.0	<5.0	<5.0	<10	1,265	3.5	0.22	310	0.77
	10/18/2006	6.2	240	840	30	5.3	110	1.8	<0.7	9.3	<0.7	<0.7	1.8	1.6	<1.4	1,246	--	--	--	0.94
	11/14/2006	<5.0	250	840	28	5.5	140	<5.0	<5.0	6.7	<5.0	<5.0	<5.0	<5.0	<10	1,270	21	0.35	12,000	0.93
	12/11/2006	<7.1	270	930	28	<7.1	120	<7.1	<7.1	9.4	<7.1	<7.1	<7.1	<7.1	<14	1,357	22	0.33	13,000	1.0
	5/31/2007	<6.3	140	1,700	47	<6.3	350	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	<13	2,237	35	0.35	12,000	1.3
	8/21/2007	<5.0	17	950	31	<5.0	200	<5.0	<5.0	6.5	<5.0	<5.0	<5.0	<5.0	<10	1,205	14	0.40	4,000	1.7
	11/1/2007	<7.1	740	36	<7.1	220	<7.1	<7.1	<7.1	<7.1	<7.1	<7.1	<7.1	<7.1	<14	996	20	0.19	2,400	4.0
	2/7/2008	<4.2	260	930	<4.2	6.3	110	<4.2	<4.2	8.0	<4.2	<4.2	<4.2	<4.2	<8.3	1,314	18	0.24	3,800	0.77
	2/28/2008	<5.0	180	620	19	<5.0	58	<5.0	<5.0	6.1	<5.0	<5.0	<5.0	<5.0	<10	883	32	0.63	7,900	2.5
	3/27/2008	6.6	240	860	24	<6.3	110	<6.3	<6.3	12	<6.3	<6.3	<6.3	<6.3	<13	1,253	20	0.55	3,800	1.1
	5/2/2008	<7.1	250	890	40	<7.1	93	<7.1	<7.1	8.0	<7.1	<7.1	<7.1	<7.1	<14	1,281	7.9	0.38	2,200	1.3
	7/18/2008	<2.0	74	450	14	<2.0	380	<2.0	<2.0	6.4	<2.0	<2.0	<2.0	<2.0	<4.0	927	19	0.20	1,300	1.6
	10/7/2008	1.8	100	680	15	2.2	240	1.8	<1.3	6.4	<1.3	<1.3	<5.0	<1.3	<2.5	1,047	21	0.28	1,800	1.6
	2/10/2009	<7.1	140	1,000	25	<7.1	160	<7.1	<7.1	7.6	<7.1	<7.1	<7.1	<7.1	<14	1,333	36	1.2	11,000	1.1
	6/1/2009	<3.6	79	570	25	3.8	570	<3.6	<3.6	5.3	<3.6	<3.6	<14	<3.6	<7.1	1,253	28	0.87	7,500	1.4
	7/13/2009	<5.0	37	660	20	<5.0	590	<5.0	<5.0	5.3	<5.0	<5.0	<20	<5.0	<10	1,312	20	0.51	6,900	1.5
	10/16/2009	<5.0	140	1,300	27	7.0	400	<5.0	<5.0	7.0	<5.0	<5.0	<20	<5.0	<10	1,881	11	1.2	9,600	1.3
	2/18/2010	<5.0	12	510	21	<5.0	660	<5.0	<5.0	5.1	<5.0	<5.0	<20	<5.0	<10	1,208	9.9	0.99	5,600	1.5
	4/22/2010	<5.0	62	1,500	25	<5.0	340	<5.0	<5.0	5.3	<5.0	<5.0	<20	<5.0	<10	1,932	7.6	1.6	4,300	1.5
	7/6/2010	<10	29	1,100	21	<10	300	<10	<10	<10	<10	<10	<40	<10	<20	1,450	4.0	0.79	1,700	1.1
	10/21/2010	<8.3	240	2,400	32	12	49	<8.3	<8.3	<8.3	<8.3	<8.3	<33	<8.3	<17	2,733	0.60	1.7	4,300	1.3
	2/1/2011	<17	87	1,900	24	<17	83	<17	<17	<17	<17	<17	<67	<17	<33	2,094	0.51	0.52	950	0.96
	4/15/2011	<10	110	1,300	17	<10	28	<10	<10	<10	<10	<10	<40	<10	<20	1,455	0.17	0.18	320	0.91
	7/22/2011	<6.3	67	940	22	<6.3	44	<6.3	<6.3	<6.3	<6.3	<6.3	<25	<6.3	<13	1,073	0.82	0.17	360	0.89
	10/27/2011	<6.3	200	1,000	23	<6.3	110	<6.3	<6.3	<6.3	<6.3	<6.3	<25	<6.3	<13	1,333	11	5.2	1,400	0.79
	11/21/2011	7.4	360	1,700	28	8.7	130	2.2	<0.5	11	<0.5	<0.5	1.7	1.1	<1.0	2,250	5.5	2.3	880	0.64
	2/9/2012	<6.3	180	780	31	<6.3	93	<6.3	<6.3	<6.3	<6.3	<6.3	<25	<6.3	<13	1,084	7.1	1.8	1,200	0.93
	4/20/2012	<6.3	150	620	35	<6.3	21	<6.3	<6.3	<6.3	<6.3	<6.3	<25	<6.3	<13	826	0.20	0.56	670	0.72
	7/23/2012	<5.0	190	570	16	<5.0	21	<5.0	<5.0	<5.0	<5.0	<5.0	<20	&lt						

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
X1B <sup>1</sup>	08/21/2018	<10	<10	360	12	<10	170	<10	<10	<10	<10	<10	<10	<10	<20	992	2.8	4.7	1,200	<1.0
	10/09/2018	<10	<10	300	<10	<10	140	<10	<10	<10	<10	<10	<10	<10	<20	900	2.0	3.6	470	<1.0
	02/06/2019	<10	<10	450	<10	<10	98	<10	<10	<10	<10	<10	<10	<10	<20	548	1.2	3.9	290	<1.0
	06/12/2019	<0.50	5.8	110	3.9	<0.50	15	<0.50	<0.50	0.71	<0.50	<0.50	<0.50	<0.50	<1.0	135	2.6 J-	0.57 J-	8,000 J-	2,400
	08/16, 09/16/2019	<0.50	<0.50	340	7.8	<0.50	48	<0.50	0.64	4.4	<0.50	<0.50	<0.50	<1.0	403	18	1.7	13,000	1,800	
16-S <sup>4</sup>	12/12/2005	<0.5	6.1	29	20	<0.5	37	1.3	11	32	0.7	3.3	<0.5	<0.5	2.6	143	--	--	--	2.3
	1/13/2006	0.6	17	43	15	<0.5	44	0.9	6.7	22	<0.5	2.2	<0.5	<0.5	1.5	153	--	--	--	3.0
	2/10/2006	<0.5	9.7	33	21	<0.5	27	0.6	6.3	25	<0.5	2.6	<0.5	<0.5	1.7	127	--	--	--	6.2
	4/19/2006	4.3	260	840	29	4.8	120	1.7	2.8	17	<0.5	0.8	2	1.4	<1.0	1,284	--	--	--	5.4
	5/1/2006	<6.3	340	810	27	<6.3	130	<6.3	<6.3	6.5	<6.3	<6.3	<6.3	<6.3	<13	1,314	--	--	--	1.9
	7/6/2006	<0.5	5.5	37	27	<0.5	14	<0.5	21.0	24.0	0.6	3	<0.5	<0.5	2.1	134	--	--	--	16
	8/2/2006	<0.5	2.8	30	17	<0.5	15	<0.5	23.0	21.0	0.6	2.9	<0.5	<0.5	1.5	114	--	--	--	72
	11/14/2006	<0.5	1.5	32	19	<0.5	13	<0.5	26	13	0.5	2.6	<0.5	<0.5	3.1	111	18	0.13	11,000	18
	5/31/2007	<0.5	0.7	11	28	<0.5	9.6	0.6	24	21	0.5	3.0	<0.5	<0.5	7.4	106	4.5	0.24	5,800	4.93
	8/21/2007	<0.5	0.8	14	31	<0.5	19	0.6	21	22	0.6	3.0	<0.5	<0.5	9.3 J	121	9.9	2.1	6,500	8.9
	10/22/2007	<0.5	0.9	19	27	<0.5	27	0.6	20	28	0.5	3.0	<0.5	<0.5	6.0	132	13	1.1	7,300	18
	2/7/2008	<0.5	2.9	14	18	<0.5	8.8	<0.5	21	32	0.7	3.6	<0.5	<0.5	7.4	108	5.4	1.0	8,800	35
	2/28/2008	<0.5	1.1	13	9.8	<0.5	7.3	<0.5	20	21	0.5	2.8	<0.5	<0.5	1.4	77	20	0.44	10,000	280
	3/27/2008	<0.5	1.2	13	13	<0.5	11	<0.5	27	15	0.6	2.8	<0.5	<0.5	1.4	85	19	0.47	13,000	71
	5/2/2008	<0.5	0.9	36	12	<0.5	31	<0.5	36	12	0.5	3.0	<0.5	<0.5	<1.0	131	19	0.66	13,000	57
	7/21/2008	<0.5	<0.5	3.6	7	<0.5	3.6	<0.5	24	5.4	<0.5	1.9	<0.5	<0.5	<1.0	46	10	0.14	9,900	38
	10/7/2008	<0.5	<0.5	4.2	6.3	<0.5	3.9	<0.5	34	4.8	0.5	2.3	<2.0	<0.5	1.1	57	13	0.32	12,000	40
	2/11/2009	<0.5	0.8	5.8	5.9	<0.5	5.9	<0.5	22	6.2	<0.5	1.9	<2.0	<0.5	1.8	50	7.0	2.2	8,800	17
	5/27/2009	<0.5	1.3	11	8.8	<0.5	14	<0.5	28	8.2	<0.5	2.3	<2.0	<0.5	3.9	78	4.4	4.5	6,000	13
	7/13/2009	<0.5	1.0	14	9.3	<0.5	20	<0.5	31	11	0.6	2.8	<2.0	<0.5	3.2	93	3.9	3.6	4,500	12
	10/16/2009	<0.5	1.0	18	10	<0.5	26	<0.5	24	16	0.6	2.9	<2.0	<0.5	4.1	103	4.4	4.6	3,800	9.5
	2/19/2010	<0.5	0.6	7.7	8.8	<0.5	27	<0.5	16	13	<0.5	2.4	<2.0	<0.5	3.7	79	3.2	4.4	3,300	9.2
	4/23/2010	<0.5	<0.5	7.3	7.2	<0.5	20	<0.5	15	12	<0.5	2.1	<2.0	<0.5	3.3	67	2.2	4.8	3,000	7.5
	7/7/2010	<0.5	<0.5	7.2	4.6	<0.5	26	<0.5	31	13	0.6	2.9	<2.0	<0.5	4.9	90	1.8	4.0	2,800	8.3
	10/21/2010	<0.5	<0.5	6.9	6.4	<0.5	21	<0.5	13	13	<0.5	2.1	<2.0	<0.5	2.9	65	2.0	2.7	1,600	6.4
	2/2/2011	<0.5	<0.5	3.6	4.1	<0.5	18	<0.5	16	12	<0.5	2.2	<2.0	<0.5	1.8	58	1.5	2.9	1,400	6.0
	4/15/2011	<0.5	<0.5	3.5	5.7	<0.5	22	<0.5	11	10	<0.5	1.7	<2.0	<0.5	1.6	56	1.2	2.8	1,100	5.3
	7/22/2011	<0.5	<0.5	2.5	2.0	<0.5	11	<0.5	15	9.6	<0.5	2.1	<2.0	<0.5	1.5	44	0.58	3.0	1,400	5.5
	10/27/2011	<0.5	<0.5	2.0	1.5	<0.5	7.9	<0.5	11	11	<0.5	1.8	<2.0	<0.5	2.2	37	2.5	3.3	1,300	5.0
	2/8/2012	<0.50	<0.50	2.1	1.4	<0.50	5.6	<0.50	12	10.0	<0.50	1.6	<2.0	<0.50	1.1	34	0.38	2.7	5,700	7.1
	4/20/2012	<0.50	<0.50	3.8	1.9	<0.50	9.5	<0.50	11	11	<0.50	1.9	<2.0	<0.50	<1.0	39	0.66	2.5	6,000	6.8

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
16-S <sup>4</sup>	02/05/2018	<0.50	<0.50	2.1	<0.50	<0.50	19	<0.50	8.0	5.8	<0.50	0.78	<0.50	<0.50	<1.0	36	2.1	6.2	6,500	4.3
	06/15/2018	<0.50	<0.50	7.9	2.4	<0.50	45	<0.50	8.9	9.2	<0.50	1.5	<0.50	<0.50	<1.0	75	12	14	8,900	3.0
	08/21/2018	<0.50	<0.50	3.5	0.64	<0.50	23	<0.50	10	10	<0.50	1.6	<0.50	<0.50	<1.0	70	2.7	6.3	6,000	4.3
	10/09/2018	<0.50	<0.50	3.0	<0.50	<0.50	29	<0.50	9.6	11	<0.50	1.7	<0.50	<0.50	<1.0	76	2.0 J-	3.7 J-	5,300 J-	3.9
	02/06/2019	<0.50	<0.50	2.7	<0.50	<0.50	29	<0.50	8.5	7.6	<0.50	1.1	<0.50	<0.50	<1.0	49	3.2	10	7,500	3.3
	06/12/2019	<0.50 J	<0.50 J	2.3 J-	0.80 J-	<0.50 J	6.3 J-	<0.50 J	8.6 J-	7.8 J-	<0.50 J	1.2 J-	<0.50 J	<0.50 J	<1.0 J	27	8.6	4.0	8,800	4.6
	08/16, 09/16/2019	<0.50	<0.50	5.1	0.60	<0.50	56	<0.50	11	11	<0.50	1.5	<0.50	<0.50	<1.0	85	2.0	4.4	7,000	3.8
	10/17/2019	<0.50	<0.50	4.1	<0.50	<0.50	27	<0.50	6.0	6.7	<0.50	0.97	<0.50	<0.50	<1.0	45	--	--	--	--
DW-7 <sup>4</sup>	12/12/2005	<1.3	300	100	1.6	1.7	4.6	<1.3	1.3	1.3	<1.3	10	<1.3	<2.5	419	--	--	--	<0.50	
	1/13/2006	<2.5	350	210	<2.5	<2.5	5	<2.5	<2.5	<2.5	<2.5	15	<2.5	<5.0	580	--	--	--	<0.50	
	2/10/2006	<1.7	270	140	2.8	2	4.1	<1.7	<1.7	1.9	<1.7	9.9	<1.7	<3.3	431	--	--	--	0.97	
	4/19/2006	<2.0	180	290	3.8	2.3	3.9	<2.0	<2.0	<2.0	<2.0	4.6	<2.0	<4.0	485	--	--	--	1.7	
	5/1/2006	<2.0	110	2,000	17	6.4	42	<2.0	<2.0	4.8	<2.0	3.8	<2.0	<4.0	2,184	--	--	--	5.4	
	7/6/2006	<3.6	72	430	6.1	<3.6	230	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.1	738	--	--	--	69	
	8/2/2006	<1.3	57	180	5.9	1.3	150	<1.3	<1.3	3.1	<1.3	2.8	<1.3	<2.5	400	170 J	0.16 J	4,700 J	200	
	11/14/2006	<1.7	140	200	<1.7	<1.7	6.4	<1.7	<1.7	<1.7	<1.7	4.5	<1.7	<3.3	351	--	--	--	0.66	
	5/31/2007	<1.0	68	210	1.5	1.1	14	<1.0	<1.0	<1.0	<1.0	3.8	<1.0	<2.0	298	2.5	0.15	66	0.72	
	8/21/2007	<1.3	85	210	1.9	<1.3	10	<1.3	<1.3	<1.3	<1.3	3.5	<1.3	<2.5	310	2.0	0.27	160	0.63	
	11/1/2007	<1.0	160	97	<1.0	<1.0	5.3	<1.0	<1.0	<1.0	<1.0	5.4	<1.0	<2.0	268	0.94	0.11	42	<0.50	
	2/7/2008	<1.7	72	230	1.8	<1.7	22	<1.7	<1.7	<1.7	<1.7	2.8	<1.7	<3.3	329	18	0.086	350	0.57	
	2/28/2008	<1.3	130	160	4.2	<1.3	43	<1.3	<1.3	<1.3	<1.3	2.8 U	<1.3	<2.5	340	18	0.082	560	0.76	
	3/27/2008	<1.0	140	130	1.8	<1.0	51	<1.0	<1.0	1.2	<1.0	2.4	<1.0	<2.0	326	36	0.72	5,500	3.6	
	5/2/2008	<1.0	160	160	2.5	<1.0	59	<1.0	<1.0	1.4	<1.0	3.3	<1.0	<2.0	386	6.5	0.075	570	2.3	
	7/21/2008	<0.5	6.9	210	2.8	0.7	62	0.9	<0.5	0.6	<0.5	<0.5	1.5	<0.5	<1.0	285	4.5	0.49	220	1.1
	10/7/2008	<1.3	17	190	2.5	<1.3	70	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	280	2.9	0.45	150	1.1
	2/11/2009	<1.3	14	160	1.7	<1.3	70	<1.3	<1.3	<1.3	<1.3	<1.3	<5.0	<1.3	<2.5	246	2.4	0.16	270	0.54
	6/1/2009	<0.5	5.1	100	1.7	<0.5	65	0.7	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.0	173	0.96	0.28	53	0.67
	7/13/2009	<0.5	6.1	95	1.8	<0.5	87	0.6	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.0	191	1.4	0.34	58	0.8
	10/16/2009	<0.5	6.0	69	2.2	<0.5	110	0.7	<0.5	0.6	<0.5	<0.5	<2.0	<0.5	<1.0	189	2.7	0.61	64	0.79
	2/19/2010	<0.5	3.3	44	1.1	<0.5	26	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.0	74	0.45	0.23	6.1	0.89
	4/23/2010	<0.5	12.0	86	1.4	<0.5	28	0.6	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.0	128	0.36	0.29	9.3	0.73
	7/7/2010	<1.0	4.2	57	1.5	<1.0	110	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<2.0	173	1.5	0.41	14	<0.50
	10/21/2010	<1.0	5.2	52	2.1	<1.0	140	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<2.0	199	2.5	0.53	12	0.80
	2/2/2011	<0.5	3.1	32	0.9	<0.5	19	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.0	55	0.23	0.14	3.4	0.71
	4/15/2011	<0.5	5.2	62	1.5	<0.5	41	0.7	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.0	110	0.37	0.20	3.8	0.77
	7/22/2011	<1.0	2.0	32																

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
DW-7 <sup>4</sup>	06/15/2018	<0.50	58	160	3.0	0.63	3.3	<0.50	<0.50	<0.50	<0.50	1.6	<0.50	<1.0	227	0.060 J	0.12	36	<1.0	
	08/21/2018	<0.50	70	150	2.2	0.81	5.1	0.57	<0.50	<0.50	<0.50	2.0	<0.50	<1.0	251	0.064 J	0.12	52	<1.0	
	10/09/2018	<0.50	69	130	2.0	0.72	4.3	0.51	<0.50	<0.50	<0.50	1.8	<0.50	<1.0	229	0.077 J	0.072 J	11	<1.0	
	02/06/2019	<0.50	60	130	1.1	0.54	1.5	<0.50	<0.50	<0.50	<0.50	1.1	<0.50	<1.0	194	0.017 J	0.065 J	2.1	<1.0	
	06/12/2019	<0.50	26	140	2.3	0.58	3.2	<0.50	<0.50	<0.50	<0.50	1.1	<0.50	<1.0	173	1.8	0.31	300	<1.0	
	08/16/2019	<0.50	41	140	20	<0.50	6.8	0.55	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<1.0	208	0.17	0.11	18	<1.0
	10/17/2019	<0.50	39	160	1.9	0.58	7.0	<0.50	<0.50	<0.50	<0.50	0.96	<0.50	<1.0	209	--	--	--	--	
16-D <sup>4</sup>	12/12/2005	<5.0	740	970	17	6.7	45	<5.0	<5.0	7.9	<5.0	<5.0	<5.0	<10	1,787	--	--	--	1.2	
	1/13/2006	<17	3,200	4,000	<17	<17	100	<17	<17	<17	<17	<17	<17	<17	<33	7,300	--	--	--	0.93
	2/10/2006	<25	1,800	3,100	<25	<25	82	<25	<25	<25	<25	<25	<25	<25	<50	4,982	--	--	--	1.0
	4/19/2006	<6.3	340	970	41	<6.3	91	<6.3	<6.3	9.6	<6.3	<6.3	<6.3	<6.3	<13	1,452	--	--	--	1.8
	5/1/2006	<2.5	220	390	6.8	3.1	6.9	<2.5	<2.5	<2.5	<2.5	5.6	<2.5	<5.0	632	--	--	--	0.78	
	7/6/2006	<3.6	110	460	4.7	<3.6	80	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.1	655	--	--	--	8.4	
	9/18/2006	<0.5	0.6	12	10	<0.5	10	<0.5	2.7	4.4	1.9	0.5	<0.5	<1.0	42	250	0.38	19,000	91	
	10/18/2006	<0.5	1.5	50	4.7	<0.5	59	<0.5	0.8	2.3	<0.5	0.6	0.5	<0.5	<1.0	119	--	--	--	2.7
	11/14/2006 <sup>17</sup>	<0.5	1.2	26	8.8	<0.5	30	0.7	1.5	4.8	<0.5	0.6	<0.5	<1.0	74	--	--	--	9.7	
	5/31/2007	<0.5	1.7	140	21	0.6	190	2.2	3.0	8.6	<0.5	<0.5	<0.5	<1.0	367	76	0.14	6,600	2.4	
	8/21/2007	<0.5	1.0	3.4	5.9	<0.5	6.6	1.4	0.9	4.8	<0.5	<0.5	<0.5	<5.0	24	54	0.36	5,900	2.2	
	10/22/2007	<0.5	1.7	20	7.2	<0.5	150	1.4	<0.5	3.4	<0.5	<0.5	<1.7	<0.5	<3.3	184	50	0.17	7,700	1.8
	2/7/2007	<0.5	3.0	18	5.2	<0.5	29	0.9	<0.5	3.2	<0.5	<0.5	<0.5	<1.0	59	95	0.30	12,000	75	
	2/28/2008	<0.5	1.9	34	4.3	0.6	26	1	<0.5	2.7	<0.5	<0.5	<0.5	<1.0	71	17	0.32	8,700	3.7	
	3/27/2008	<0.5	2.4	48	6.3	<0.5	53	0.5	<0.5	3.0	<0.5	<0.5	<0.5	<1.0	113	33	1.2	19,000	10	
	5/2/2008	<0.5	3.3	36	5.2	<0.5	52	0.7	<0.5	2.1	<0.5	<0.5	0.6	<1.0	100	17	0.38	8,400	9.6	
	7/21/2008	<0.5	1.5	2.1	4.1	<0.5	1.5	1.1	<0.5	1.9	<0.5	<0.5	<0.5	<1.0	12	0.12	0.22	3,300	2.4	
	10/7/2008	<0.5	1.7	2.5	4.3	<0.5	4.5	1.2	<0.5	2.2	<0.5	<0.5	<2.0	<0.5	<1.0	16	0.31	0.23	2,400	1.8
	2/11/2009	<0.5	1.3	71	7.1	<0.5	50	0.8	<0.5	2.2	<0.5	<0.5	<2.0	<0.5	<1.0	132	0.14	3.4	1,500	1.6
	6/1/2009	<1.0	1.0	160	12	<1.0	110	<1.0	4.5	7.5	<1.0	<1.0	<4.0	<1.0	<2.0	295	18	0.86	7,200	3.5
	7/13/2009	<1.0	<1.7	190	15	<1.0	130	1.0	6.4	8.4	<1.0	<1.0	<4.0	<1.0	<2.0	351	13	0.80	6,900	4.1
	10/16/2009	<1.7	7.0	240	16	<1.7	110	<1.7	9.7	9.9	<1.7	<1.7	<6.7	<1.7	<3.3	393	13	1.4	7,100	4.2
	2/19/2010	<1.7	2.7	230	17	<1.7	130	<1.7	8.3	7.3	<1.7	<1.7	<6.7	<1.7	<3.3	395	9.6	1.3	5,500	3.6
	4/23/2010	<1.7	2.1	240	15	<1.7	130	<1.7	6.8	8.3	<1.7	<1.7	<6.7	<1.7	<3.3	402	11	1.2	5,700	2.9
	7/7/2010	<1.7	2.6	240	15	<1.7	210	<1.7	8.8	9.9	<1.7	<1.7	<6.7	<1.7	<3.3	486	9.5	1.3	5,200	2.9
	10/21/2010	<1.7	<1.7	180	14	<1.7	180	<1.7	5.2	6.6	<1.7	<1.7	<6.7	<1.7	<3.3	386	10	0.78	3,500	1.9
	2/2/2011	<1.3	<1.3	230	13	<1.3	240	1.5	2.0	5.8	<1.3	<1.3	<5.0	<1.3	<2.5	492	10	0.37	3,800	1.1
	4/15/2011	<1.3	<1.3	32	7.2	<1.3	210	1.5	<1.3	3.8	<1.3	<1.3	<5.0	<1.3	<2.5	255	10	0.25	1,500	0.88
	7/22/2011	<1.3	<1.3	40	8.3	<1.3	200	<1.3	<1.3	3.1	<1.3	<1.3	<5.0	<1.3	<2.5</					

ANALYTICAL RESULTS FOR DETECTED COMPOUNDS<sup>1,2</sup>

FORMER 901/902 THOMPSON PLACE FACILITY

SUNNYVALE, CALIFORNIA

Sample ID	Sample Date	PCE EPA 8260B	TCE EPA 8260B	cDCE EPA 8260B	tDCE EPA 8260B	1,1-DCE EPA 8260B	VC EPA 8260B	1,1-DCA EPA 8260B	CB EPA 8260B	1,2-DCB EPA 8260B	1,3-DCB EPA 8260B	1,4-DCB EPA 8260B	Freon 113 EPA 8260B	1,1,1-TCA EPA 8260B	CE EPA 8260B	Total VOCs <sup>3</sup>	Ethene AM20GAX	Ethane AM20GAX	Methane AM20GAX	TOC EPA 415.2 (mg/L)
16-D <sup>4</sup>	10/12/2016	<0.50	<0.50	4.3	0.85	<0.50	59	0.69	<0.50	1.1	<0.50	<0.50	<0.50	<0.50	<1.0	66	4.2	1.6	2,200	<1.0
	2/13/2017	<0.50	<0.50	4.2	0.83	<0.50	65	0.72	<0.50	1.1	<0.50	<0.50	<0.50	<0.50	<1.0	72	2.8	1.1	410	<1.0
	06/14/2017	<0.50	<0.50	44	1.8	<0.50	140	0.59	<0.50	0.83	<0.50	<0.50	<0.50	<0.50	<1.0	187	160	47	13,000	290
	08/21/2017	<0.50	<0.50	2.4	0.72	<0.50	14	0.68	<0.50	1.1	<0.50	<0.50	<0.50	<0.50	<1.0	19	4.7J	14J	14,000J	2.1
	10/10/2017	<0.50 J	<0.50 J	0.80 J-	<0.50 R	<0.50 J	14 J-	0.59 J-	<0.50 J	<0.50 R	<0.50 J	<0.50 J	<0.50 J	<0.50 J	<1.0 J	15	1.7	4.0	2,900	1.1
	02/05/2018	<0.50	<0.50	2.3	1.0	<0.50	44	0.82	<0.50	0.52	<0.50	<0.50	<0.50	<0.50	<1.0	49	1.7	1.5	280	<1.0
	06/15/2018	<0.50	<0.50	2.1	1.5	<0.50	7.7	0.66	<0.50	1.4	<0.50	<0.50	<0.50	<0.50	<1.0	13	150	41	19,000	180

## Notes:

&lt; = Compound not detected above indicated laboratory reporting limit

&lt;0.5 / &lt;0.5 = Indicates that duplicate samples were collected

1,1,1-TCA = 1,1,1-Trichloroethane

1,1-DCA = 1,1-Dichloroethane

1,1-DCE = 1,1-Dichloroethene

1,2-DCB = 1,2-Dichlorobenzene

1,3-DCB = 1,3-Dichlorobenzene

1,4-DCB = 1,4-Dichlorobenzene

CB = Chlorobenzene

cDCE = cis-1,2-Dichloroethene

CE = Chloroethane

EPA = United States Environmental Protection Agency

Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane

J = Analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, but is biased low, based on method blanks, surrogates, quantitation, and/or matrix spikes.

J = Analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = Milligrams per liter

PCE = Tetrachloroethene

R = Result is rejected as unusable.

TCE = Trichloroethene

tDCE = trans-1,2-Dichloroethene

TOC = Total organic carbon

U = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UU = Analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.

VC = Vinyl chloride

VOC = Volatile organic compound

1. Samples were collected by AMEC Geomatix, Field Solutions, Inc. or Blaine Tech Services, Inc. of San Jose, California and submitted to Curtis and Tompkins, Ltd. of Berkeley, California, or Eurofins TestAmerica of Pleasanton, California for VOC and TOC analyses. Ethene, ethane, and methane were analyzed by Microseeps, Inc. or Pace Analytical Energy Services, LLC of Pittsburgh, Pennsylvania.

2. Baseline sampling was conducted on 6 and 7 December 2005.

3. Total VOCs shown on this table refers specifically to the sum of the VOCs displayed on this table. Refer to analytical laboratory reports for a complete list of detected compounds.

4. Well has been used for extraction and/or injection during active in situ bioremediation system operations.

Concentrations reported in micrograms per liter ( $\mu\text{g}/\text{L}$ ), unless otherwise noted.

**APPENDIX D**

**Laboratory Analytical Reports**



Environment Testing  
TestAmerica

## ANALYTICAL REPORT

Eurofins TestAmerica, Pleasanton  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

Laboratory Job ID: 720-95667-1

Client Project/Site: 901/902 Thompson Place-Advanced Micro

For:  
Haley & Aldrich, Inc.  
1956 Webster Street  
Suite 300  
Oakland, California 94612

Attn: Michael Calhoun

Authorized for release by:  
10/28/2019 11:30:56 AM

Micah Smith, Project Manager II  
(925)484-1919  
[micah.smith@testamericainc.com](mailto:micah.smith@testamericainc.com)

### LINKS

Review your project  
results through

**Total Access**

Have a Question?

Ask—  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	8
Surrogate Summary . . . . .	29
QC Sample Results . . . . .	31
QC Association Summary . . . . .	55
Lab Chronicle . . . . .	57
Certification Summary . . . . .	60
Method Summary . . . . .	61
Sample Summary . . . . .	62
Chain of Custody . . . . .	63
Receipt Checklists . . . . .	65

# Definitions/Glossary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Job ID: 720-95667-1**

**Laboratory: Eurofins TestAmerica, Pleasanton**

## Narrative

### Job Narrative 720-95667-1

## Comments

No additional comments.

## Receipt

The samples were received on 10/18/2019 5:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

## GC/MS VOA

Method 8260B: The following volatile samples were analyzed with significant headspace in the sample container(s): 28-D (720-95667-14) and 27-DD (720-95667-15). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Client Sample ID: 35-DDD

Lab Sample ID: 720-95667-1

No Detections.

## Client Sample ID: 15-S

Lab Sample ID: 720-95667-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.6		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 29-S

Lab Sample ID: 720-95667-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.8		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	15		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 29-D

Lab Sample ID: 720-95667-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.56		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.0		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	2.9		0.50		ug/L	1		8260B	Total/NA
1,2,4-Trichlorobenzene	2.3		1.0		ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	0.64		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	63		0.50		ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	0.53		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 36-D

Lab Sample ID: 720-95667-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	21		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	1.1		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	1.4		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	43		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 52-D

Lab Sample ID: 720-95667-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.71		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	22		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 53-D

Lab Sample ID: 720-95667-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	6.9		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 27-D

Lab Sample ID: 720-95667-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.1		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	3.8		0.50		ug/L	1		8260B	Total/NA
1,2,4-Trichlorobenzene	2.4		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	67		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 1-D

Lab Sample ID: 720-95667-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.1		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	3.7		0.50		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pleasanton

# Detection Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## **Client Sample ID: 1-D (Continued)**

## **Lab Sample ID: 720-95667-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trichlorobenzene	2.3		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	67		0.50		ug/L	1		8260B	Total/NA

## **Client Sample ID: 36-DD**

## **Lab Sample ID: 720-95667-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	1.1		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	1.0		0.50		ug/L	1		8260B	Total/NA
Vinyl chloride	1.7		0.50		ug/L	1		8260B	Total/NA

## **Client Sample ID: EB-1**

## **Lab Sample ID: 720-95667-11**

No Detections.

## **Client Sample ID: 36-S**

## **Lab Sample ID: 720-95667-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	1.7		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	58		0.50		ug/L	1		8260B	Total/NA

## **Client Sample ID: 37-S**

## **Lab Sample ID: 720-95667-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.0		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	0.59		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	37		0.50		ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	0.55		0.50		ug/L	1		8260B	Total/NA

## **Client Sample ID: 28-D**

## **Lab Sample ID: 720-95667-14**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	10		0.50		ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	5.2		0.50		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.50		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	6.5		0.50		ug/L	1		8260B	Total/NA
Vinyl chloride	44		0.50		ug/L	1		8260B	Total/NA

## **Client Sample ID: 27-DD**

## **Lab Sample ID: 720-95667-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.6		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.83		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	0.76		0.50		ug/L	1		8260B	Total/NA
1,2,4-Trichlorobenzene	2.5		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	22		0.50		ug/L	1		8260B	Total/NA

## **Client Sample ID: 28-S**

## **Lab Sample ID: 720-95667-16**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	7.8		0.50		ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	6.5		0.50		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.58		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	4.8		0.50		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pleasanton

# Detection Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Client Sample ID: 28-S (Continued)

## Lab Sample ID: 720-95667-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	44		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 22-S

## Lab Sample ID: 720-95667-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	2.7		0.50		ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	18		0.50		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.99		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	36		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	6.6		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	4.9		0.50		ug/L	1		8260B	Total/NA
Vinyl chloride	31		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 22-DD

## Lab Sample ID: 720-95667-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	10		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	150		0.50		ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: EB-2

## Lab Sample ID: 720-95667-19

No Detections.

## Client Sample ID: 27-S

## Lab Sample ID: 720-95667-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3-Dichlorobenzene	30		5.0		ug/L	10		8260B	Total/NA
1,4-Dichlorobenzene	5.3		5.0		ug/L	10		8260B	Total/NA
cis-1,2-Dichloroethene	290		5.0		ug/L	10		8260B	Total/NA
trans-1,2-Dichloroethene	14		5.0		ug/L	10		8260B	Total/NA
1,2,4-Trichlorobenzene	14		10		ug/L	10		8260B	Total/NA
Trichloroethene	35		5.0		ug/L	10		8260B	Total/NA
Vinyl chloride	15		5.0		ug/L	10		8260B	Total/NA

## Client Sample ID: 2-D

## Lab Sample ID: 720-95667-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3-Dichlorobenzene	31		5.0		ug/L	10		8260B	Total/NA
1,4-Dichlorobenzene	5.4		5.0		ug/L	10		8260B	Total/NA
cis-1,2-Dichloroethene	290		5.0		ug/L	10		8260B	Total/NA
trans-1,2-Dichloroethene	15		5.0		ug/L	10		8260B	Total/NA
1,2,4-Trichlorobenzene	15		10		ug/L	10		8260B	Total/NA
Trichloroethene	34		5.0		ug/L	10		8260B	Total/NA
Vinyl chloride	16		5.0		ug/L	10		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 35-DDD**

Date Collected: 10/17/19 14:49

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-1**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 16:03	1
Bromoform	ND		1.0		ug/L			10/23/19 16:03	1
Bromomethane	ND		1.0		ug/L			10/23/19 16:03	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 16:03	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 16:03	1
Chloroethane	ND		1.0		ug/L			10/23/19 16:03	1
Chloroform	ND		1.0		ug/L			10/23/19 16:03	1
Chloromethane	ND		1.0		ug/L			10/23/19 16:03	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 16:03	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 16:03	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 16:03	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 16:03	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 16:03	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 16:03	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 16:03	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 16:03	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 16:03	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 16:03	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 16:03	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 16:03	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 16:03	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 16:03	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 16:03	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 16:03	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 16:03	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 16:03	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 16:03	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 16:03	1
Trichloroethene	ND		0.50		ug/L			10/23/19 16:03	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 16:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 16:03	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 16:03	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromo fluorobenzene	99		67 - 130					10/23/19 16:03	1
1,2-Dichloroethane-d4 (Sur)	107		72 - 130					10/23/19 16:03	1
Toluene-d8 (Sur)	97		70 - 130					10/23/19 16:03	1

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 15-S**

Date Collected: 10/17/19 13:40

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-2**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 16:30	1
Bromoform	ND		1.0		ug/L			10/23/19 16:30	1
Bromomethane	ND		1.0		ug/L			10/23/19 16:30	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 16:30	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 16:30	1
Chloroethane	ND		1.0		ug/L			10/23/19 16:30	1
Chloroform	ND		1.0		ug/L			10/23/19 16:30	1
Chloromethane	ND		1.0		ug/L			10/23/19 16:30	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 16:30	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 16:30	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 16:30	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 16:30	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 16:30	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 16:30	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 16:30	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 16:30	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 16:30	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 16:30	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 16:30	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 16:30	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 16:30	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 16:30	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 16:30	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 16:30	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 16:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 16:30	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 16:30	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 16:30	1
<b>Trichloroethene</b>	<b>4.6</b>		0.50		ug/L			10/23/19 16:30	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 16:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 16:30	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 16:30	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromoanisole	100		67 - 130					10/23/19 16:30	1
1,2-Dichloroethane-d4 (Sur)	105		72 - 130					10/23/19 16:30	1
Toluene-d8 (Sur)	96		70 - 130					10/23/19 16:30	1

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 29-S**

Date Collected: 10/17/19 10:31

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-3**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 23:29	1
Bromoform	ND		1.0		ug/L			10/23/19 23:29	1
Bromomethane	ND		1.0		ug/L			10/23/19 23:29	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 23:29	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 23:29	1
Chloroethane	ND		1.0		ug/L			10/23/19 23:29	1
Chloroform	ND		1.0		ug/L			10/23/19 23:29	1
Chloromethane	ND		1.0		ug/L			10/23/19 23:29	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 23:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 23:29	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 23:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 23:29	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 23:29	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 23:29	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 23:29	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 23:29	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 23:29	1
cis-1,2-Dichloroethene	1.8		0.50		ug/L			10/23/19 23:29	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 23:29	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 23:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 23:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 23:29	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 23:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 23:29	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 23:29	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 23:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 23:29	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 23:29	1
Trichloroethene	15		0.50		ug/L			10/23/19 23:29	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 23:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 23:29	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 23:29	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromo fluorobenzene		101		67 - 130			10/23/19 23:29	1	
1,2-Dichloroethane-d4 (Sur)		105		72 - 130			10/23/19 23:29	1	
Toluene-d8 (Sur)		97		70 - 130			10/23/19 23:29	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 29-D**

Date Collected: 10/17/19 11:18

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-4**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 23:56	1
Bromoform	ND		1.0		ug/L			10/23/19 23:56	1
Bromomethane	ND		1.0		ug/L			10/23/19 23:56	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 23:56	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 23:56	1
Chloroethane	ND		1.0		ug/L			10/23/19 23:56	1
Chloroform	ND		1.0		ug/L			10/23/19 23:56	1
Chloromethane	ND		1.0		ug/L			10/23/19 23:56	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 23:56	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 23:56	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 23:56	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 23:56	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 23:56	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 23:56	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 23:56	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 23:56	1
<b>1,1-Dichloroethene</b>	<b>0.56</b>		0.50		ug/L			10/23/19 23:56	1
<b>cis-1,2-Dichloroethene</b>	<b>2.0</b>		0.50		ug/L			10/23/19 23:56	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 23:56	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 23:56	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 23:56	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 23:56	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 23:56	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 23:56	1
<b>Tetrachloroethene</b>	<b>2.9</b>		0.50		ug/L			10/23/19 23:56	1
<b>1,2,4-Trichlorobenzene</b>	<b>2.3</b>		1.0		ug/L			10/23/19 23:56	1
<b>1,1,1-Trichloroethane</b>	<b>0.64</b>		0.50		ug/L			10/23/19 23:56	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 23:56	1
<b>Trichloroethene</b>	<b>63</b>		0.50		ug/L			10/23/19 23:56	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 23:56	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.53</b>		0.50		ug/L			10/23/19 23:56	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 23:56	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene	100		67 - 130				10/23/19 23:56	1	
1,2-Dichloroethane-d4 (Sur)	104		72 - 130				10/23/19 23:56	1	
Toluene-d8 (Sur)	96		70 - 130				10/23/19 23:56	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID:** 36-D

**Date Collected:** 10/17/19 14:50

**Date Received:** 10/18/19 17:15

**Lab Sample ID:** 720-95667-5

**Matrix:** Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 12:58	1
Bromoform	ND		1.0		ug/L			10/23/19 12:58	1
Bromomethane	ND		1.0		ug/L			10/23/19 12:58	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 12:58	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 12:58	1
Chloroethane	ND		1.0		ug/L			10/23/19 12:58	1
Chloroform	ND		1.0		ug/L			10/23/19 12:58	1
Chloromethane	ND		1.0		ug/L			10/23/19 12:58	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 12:58	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 12:58	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 12:58	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 12:58	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 12:58	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 12:58	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 12:58	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 12:58	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 12:58	1
cis-1,2-Dichloroethene	21		0.50		ug/L			10/23/19 12:58	1
trans-1,2-Dichloroethene	1.1		0.50		ug/L			10/23/19 12:58	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 12:58	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 12:58	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 12:58	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 12:58	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 12:58	1
Tetrachloroethene	1.4		0.50		ug/L			10/23/19 12:58	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 12:58	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 12:58	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 12:58	1
Trichloroethene	43		0.50		ug/L			10/23/19 12:58	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 12:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 12:58	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 12:58	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromoanisole	103			67 - 130			10/23/19 12:58	1	
1,2-Dichloroethane-d4 (Sur)	93			72 - 130			10/23/19 12:58	1	
Toluene-d8 (Sur)	98			70 - 130			10/23/19 12:58	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 52-D**

Date Collected: 10/17/19 13:08

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-6**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 13:28	1
Bromoform	ND		1.0		ug/L			10/23/19 13:28	1
Bromomethane	ND		1.0		ug/L			10/23/19 13:28	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 13:28	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 13:28	1
Chloroethane	ND		1.0		ug/L			10/23/19 13:28	1
Chloroform	ND		1.0		ug/L			10/23/19 13:28	1
Chloromethane	ND		1.0		ug/L			10/23/19 13:28	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 13:28	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:28	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:28	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:28	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 13:28	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 13:28	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 13:28	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 13:28	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 13:28	1
cis-1,2-Dichloroethene	0.71		0.50		ug/L			10/23/19 13:28	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 13:28	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 13:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 13:28	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 13:28	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 13:28	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 13:28	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 13:28	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 13:28	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 13:28	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 13:28	1
Trichloroethene	22		0.50		ug/L			10/23/19 13:28	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 13:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 13:28	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 13:28	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromo fluorobenzene		102		67 - 130			10/23/19 13:28	1	
1,2-Dichloroethane-d4 (Sur)		94		72 - 130			10/23/19 13:28	1	
Toluene-d8 (Sur)		98		70 - 130			10/23/19 13:28	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 53-D**

Date Collected: 10/17/19 09:20

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-7**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 13:58	1
Bromoform	ND		1.0		ug/L			10/23/19 13:58	1
Bromomethane	ND		1.0		ug/L			10/23/19 13:58	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 13:58	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 13:58	1
Chloroethane	ND		1.0		ug/L			10/23/19 13:58	1
Chloroform	ND		1.0		ug/L			10/23/19 13:58	1
Chloromethane	ND		1.0		ug/L			10/23/19 13:58	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 13:58	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:58	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:58	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:58	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 13:58	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 13:58	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 13:58	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 13:58	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 13:58	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 13:58	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 13:58	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 13:58	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 13:58	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 13:58	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 13:58	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 13:58	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 13:58	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 13:58	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 13:58	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 13:58	1
<b>Trichloroethene</b>	<b>6.9</b>		0.50		ug/L			10/23/19 13:58	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 13:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 13:58	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 13:58	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromo fluorobenzene		101		67 - 130				10/23/19 13:58	1
1,2-Dichloroethane-d4 (Sur)		101		72 - 130				10/23/19 13:58	1
Toluene-d8 (Sur)		98		70 - 130				10/23/19 13:58	1

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 27-D**

Date Collected: 10/18/19 08:08

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-8**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 10:51	1
Bromoform	ND		1.0		ug/L			10/24/19 10:51	1
Bromomethane	ND		1.0		ug/L			10/24/19 10:51	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 10:51	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 10:51	1
Chloroethane	ND		1.0		ug/L			10/24/19 10:51	1
Chloroform	ND		1.0		ug/L			10/24/19 10:51	1
Chloromethane	ND		1.0		ug/L			10/24/19 10:51	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 10:51	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 10:51	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 10:51	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 10:51	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 10:51	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 10:51	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 10:51	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 10:51	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 10:51	1
cis-1,2-Dichloroethene	2.1		0.50		ug/L			10/24/19 10:51	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 10:51	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 10:51	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 10:51	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 10:51	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 10:51	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 10:51	1
Tetrachloroethene	3.8		0.50		ug/L			10/24/19 10:51	1
1,2,4-Trichlorobenzene	2.4		1.0		ug/L			10/24/19 10:51	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 10:51	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 10:51	1
Trichloroethene	67		0.50		ug/L			10/24/19 10:51	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 10:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 10:51	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 10:51	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromo fluorobenzene		103		67 - 130			10/24/19 10:51	1	
1,2-Dichloroethane-d4 (Sur)		104		72 - 130			10/24/19 10:51	1	
Toluene-d8 (Sur)		96		70 - 130			10/24/19 10:51	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 1-D**

Date Collected: 10/18/19 08:13

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-9**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 12:37	1
Bromoform	ND		1.0		ug/L			10/24/19 12:37	1
Bromomethane	ND		1.0		ug/L			10/24/19 12:37	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 12:37	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 12:37	1
Chloroethane	ND		1.0		ug/L			10/24/19 12:37	1
Chloroform	ND		1.0		ug/L			10/24/19 12:37	1
Chloromethane	ND		1.0		ug/L			10/24/19 12:37	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 12:37	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 12:37	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 12:37	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 12:37	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 12:37	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 12:37	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 12:37	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 12:37	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 12:37	1
cis-1,2-Dichloroethene	2.1		0.50		ug/L			10/24/19 12:37	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 12:37	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 12:37	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 12:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 12:37	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 12:37	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 12:37	1
Tetrachloroethene	3.7		0.50		ug/L			10/24/19 12:37	1
1,2,4-Trichlorobenzene	2.3		1.0		ug/L			10/24/19 12:37	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 12:37	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 12:37	1
Trichloroethene	67		0.50		ug/L			10/24/19 12:37	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 12:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 12:37	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 12:37	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromoanisole	102			67 - 130			10/24/19 12:37	1	
1,2-Dichloroethane-d4 (Sur)	106			72 - 130			10/24/19 12:37	1	
Toluene-d8 (Sur)	96			70 - 130			10/24/19 12:37	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 36-DD**

Date Collected: 10/18/19 12:25

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-10**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 13:04	1
Bromoform	ND		1.0		ug/L			10/24/19 13:04	1
Bromomethane	ND		1.0		ug/L			10/24/19 13:04	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 13:04	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 13:04	1
Chloroethane	ND		1.0		ug/L			10/24/19 13:04	1
Chloroform	ND		1.0		ug/L			10/24/19 13:04	1
Chloromethane	ND		1.0		ug/L			10/24/19 13:04	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 13:04	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:04	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:04	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:04	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 13:04	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 13:04	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 13:04	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 13:04	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 13:04	1
cis-1,2-Dichloroethene	12		0.50		ug/L			10/24/19 13:04	1
trans-1,2-Dichloroethene	1.1		0.50		ug/L			10/24/19 13:04	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 13:04	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:04	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:04	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 13:04	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 13:04	1
Tetrachloroethene	ND		0.50		ug/L			10/24/19 13:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 13:04	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 13:04	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 13:04	1
Trichloroethene	1.0		0.50		ug/L			10/24/19 13:04	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 13:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 13:04	1
Vinyl chloride	1.7		0.50		ug/L			10/24/19 13:04	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromo fluorobenzene	100			67 - 130			10/24/19 13:04	1	
1,2-Dichloroethane-d4 (Sur)	107			72 - 130			10/24/19 13:04	1	
Toluene-d8 (Sur)	96			70 - 130			10/24/19 13:04	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: EB-1**

Date Collected: 10/17/19 15:30

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-11**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 21:16	1
Bromoform	ND		1.0		ug/L			10/23/19 21:16	1
Bromomethane	ND		1.0		ug/L			10/23/19 21:16	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 21:16	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 21:16	1
Chloroethane	ND		1.0		ug/L			10/23/19 21:16	1
Chloroform	ND		1.0		ug/L			10/23/19 21:16	1
Chloromethane	ND		1.0		ug/L			10/23/19 21:16	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 21:16	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 21:16	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 21:16	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 21:16	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 21:16	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 21:16	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 21:16	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 21:16	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 21:16	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 21:16	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 21:16	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 21:16	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 21:16	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 21:16	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 21:16	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 21:16	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 21:16	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 21:16	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 21:16	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 21:16	1
Trichloroethene	ND		0.50		ug/L			10/23/19 21:16	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 21:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 21:16	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromo fluorobenzene	101		67 - 130		10/23/19 21:16	1
1,2-Dichloroethane-d4 (Sur)	101		72 - 130		10/23/19 21:16	1
Toluene-d8 (Sur)	98		70 - 130		10/23/19 21:16	1

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 36-S**

Date Collected: 10/18/19 10:08

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-12**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 13:30	1
Bromoform	ND		1.0		ug/L			10/24/19 13:30	1
Bromomethane	ND		1.0		ug/L			10/24/19 13:30	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 13:30	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 13:30	1
Chloroethane	ND		1.0		ug/L			10/24/19 13:30	1
Chloroform	ND		1.0		ug/L			10/24/19 13:30	1
Chloromethane	ND		1.0		ug/L			10/24/19 13:30	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 13:30	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:30	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:30	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:30	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 13:30	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 13:30	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 13:30	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 13:30	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 13:30	1
cis-1,2-Dichloroethene	12		0.50		ug/L			10/24/19 13:30	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 13:30	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 13:30	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:30	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:30	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 13:30	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 13:30	1
Tetrachloroethene	1.7		0.50		ug/L			10/24/19 13:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 13:30	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 13:30	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 13:30	1
Trichloroethene	58		0.50		ug/L			10/24/19 13:30	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 13:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 13:30	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 13:30	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromoanisole		101		67 - 130			10/24/19 13:30	1	
1,2-Dichloroethane-d4 (Sur)		108		72 - 130			10/24/19 13:30	1	
Toluene-d8 (Sur)		97		70 - 130			10/24/19 13:30	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 37-S**

Date Collected: 10/18/19 10:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-13**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 13:57	1
Bromoform	ND		1.0		ug/L			10/24/19 13:57	1
Bromomethane	ND		1.0		ug/L			10/24/19 13:57	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 13:57	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 13:57	1
Chloroethane	ND		1.0		ug/L			10/24/19 13:57	1
Chloroform	ND		1.0		ug/L			10/24/19 13:57	1
Chloromethane	ND		1.0		ug/L			10/24/19 13:57	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 13:57	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:57	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:57	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:57	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 13:57	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 13:57	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 13:57	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 13:57	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 13:57	1
cis-1,2-Dichloroethene	7.0		0.50		ug/L			10/24/19 13:57	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 13:57	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 13:57	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:57	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:57	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 13:57	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 13:57	1
Tetrachloroethene	0.59		0.50		ug/L			10/24/19 13:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 13:57	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 13:57	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 13:57	1
Trichloroethene	37		0.50		ug/L			10/24/19 13:57	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 13:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.55		0.50		ug/L			10/24/19 13:57	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 13:57	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene		100		67 - 130			10/24/19 13:57	1	
1,2-Dichloroethane-d4 (Sur)		107		72 - 130			10/24/19 13:57	1	
Toluene-d8 (Sur)		97		70 - 130			10/24/19 13:57	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 28-D**

Date Collected: 10/18/19 09:11

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-14**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 14:23	1
Bromoform	ND		1.0		ug/L			10/24/19 14:23	1
Bromomethane	ND		1.0		ug/L			10/24/19 14:23	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 14:23	1
<b>Chlorobenzene</b>	<b>10</b>		0.50		ug/L			10/24/19 14:23	1
Chloroethane	ND		1.0		ug/L			10/24/19 14:23	1
Chloroform	ND		1.0		ug/L			10/24/19 14:23	1
Chloromethane	ND		1.0		ug/L			10/24/19 14:23	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 14:23	1
<b>1,2-Dichlorobenzene</b>	<b>5.2</b>		0.50		ug/L			10/24/19 14:23	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 14:23	1
<b>1,4-Dichlorobenzene</b>	<b>0.50</b>		0.50		ug/L			10/24/19 14:23	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 14:23	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 14:23	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 14:23	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 14:23	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 14:23	1
<b>cis-1,2-Dichloroethene</b>	<b>6.5</b>		0.50		ug/L			10/24/19 14:23	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 14:23	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 14:23	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 14:23	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 14:23	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 14:23	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 14:23	1
Tetrachloroethene	ND		0.50		ug/L			10/24/19 14:23	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 14:23	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 14:23	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 14:23	1
Trichloroethene	ND		0.50		ug/L			10/24/19 14:23	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 14:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 14:23	1
Vinyl chloride	44		0.50		ug/L			10/24/19 14:23	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromoanisole	100		67 - 130				10/24/19 14:23	1	
1,2-Dichloroethane-d4 (Sur)	108		72 - 130				10/24/19 14:23	1	
Toluene-d8 (Sur)	98		70 - 130				10/24/19 14:23	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 27-DD**

Date Collected: 10/18/19 11:23

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-15**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 14:50	1
Bromoform	ND		1.0		ug/L			10/24/19 14:50	1
Bromomethane	ND		1.0		ug/L			10/24/19 14:50	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 14:50	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 14:50	1
Chloroethane	ND		1.0		ug/L			10/24/19 14:50	1
Chloroform	ND		1.0		ug/L			10/24/19 14:50	1
Chloromethane	ND		1.0		ug/L			10/24/19 14:50	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 14:50	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 14:50	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 14:50	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 14:50	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 14:50	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 14:50	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 14:50	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 14:50	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 14:50	1
cis-1,2-Dichloroethene	7.6		0.50		ug/L			10/24/19 14:50	1
trans-1,2-Dichloroethene	0.83		0.50		ug/L			10/24/19 14:50	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 14:50	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 14:50	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 14:50	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 14:50	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 14:50	1
Tetrachloroethene	0.76		0.50		ug/L			10/24/19 14:50	1
1,2,4-Trichlorobenzene	2.5		1.0		ug/L			10/24/19 14:50	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 14:50	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 14:50	1
Trichloroethene	22		0.50		ug/L			10/24/19 14:50	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 14:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 14:50	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 14:50	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromo fluorobenzene		99		67 - 130			10/24/19 14:50	1	
1,2-Dichloroethane-d4 (Sur)		106		72 - 130			10/24/19 14:50	1	
Toluene-d8 (Sur)		97		70 - 130			10/24/19 14:50	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 28-S**

Date Collected: 10/18/19 09:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-16**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 13:41	1
Bromoform	ND		1.0		ug/L			10/24/19 13:41	1
Bromomethane	ND		1.0		ug/L			10/24/19 13:41	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 13:41	1
<b>Chlorobenzene</b>	<b>7.8</b>		0.50		ug/L			10/24/19 13:41	1
Chloroethane	ND		1.0		ug/L			10/24/19 13:41	1
Chloroform	ND		1.0		ug/L			10/24/19 13:41	1
Chloromethane	ND		1.0		ug/L			10/24/19 13:41	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 13:41	1
<b>1,2-Dichlorobenzene</b>	<b>6.5</b>		0.50		ug/L			10/24/19 13:41	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 13:41	1
<b>1,4-Dichlorobenzene</b>	<b>0.58</b>		0.50		ug/L			10/24/19 13:41	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 13:41	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 13:41	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 13:41	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 13:41	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 13:41	1
<b>cis-1,2-Dichloroethene</b>	<b>4.8</b>		0.50		ug/L			10/24/19 13:41	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 13:41	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 13:41	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:41	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 13:41	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 13:41	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 13:41	1
Tetrachloroethene	ND		0.50		ug/L			10/24/19 13:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 13:41	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 13:41	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 13:41	1
Trichloroethene	ND		0.50		ug/L			10/24/19 13:41	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 13:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 13:41	1
Vinyl chloride	44		0.50		ug/L			10/24/19 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromo fluorobenzene	100		67 - 130		10/24/19 13:41	1
1,2-Dichloroethane-d4 (Sur)	107		72 - 130		10/24/19 13:41	1
Toluene-d8 (Sur)	101		70 - 130		10/24/19 13:41	1

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 22-S**

Date Collected: 10/18/19 10:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-17**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 15:16	1
Bromoform	ND		1.0		ug/L			10/24/19 15:16	1
Bromomethane	ND		1.0		ug/L			10/24/19 15:16	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 15:16	1
<b>Chlorobenzene</b>	<b>2.7</b>		0.50		ug/L			10/24/19 15:16	1
Chloroethane	ND		1.0		ug/L			10/24/19 15:16	1
Chloroform	ND		1.0		ug/L			10/24/19 15:16	1
Chloromethane	ND		1.0		ug/L			10/24/19 15:16	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 15:16	1
<b>1,2-Dichlorobenzene</b>	<b>18</b>		0.50		ug/L			10/24/19 15:16	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 15:16	1
<b>1,4-Dichlorobenzene</b>	<b>0.99</b>		0.50		ug/L			10/24/19 15:16	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 15:16	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 15:16	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 15:16	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 15:16	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 15:16	1
<b>cis-1,2-Dichloroethene</b>	<b>36</b>		0.50		ug/L			10/24/19 15:16	1
<b>trans-1,2-Dichloroethene</b>	<b>6.6</b>		0.50		ug/L			10/24/19 15:16	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 15:16	1
<b>cis-1,3-Dichloropropene</b>	<b>ND</b>		0.50		ug/L			10/24/19 15:16	1
<b>trans-1,3-Dichloropropene</b>	<b>ND</b>		0.50		ug/L			10/24/19 15:16	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 15:16	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 15:16	1
Tetrachloroethene	ND		0.50		ug/L			10/24/19 15:16	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 15:16	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 15:16	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 15:16	1
<b>Trichloroethene</b>	<b>4.9</b>		0.50		ug/L			10/24/19 15:16	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 15:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 15:16	1
<b>Vinyl chloride</b>	<b>31</b>		0.50		ug/L			10/24/19 15:16	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromoanisole	99		67 - 130				10/24/19 15:16	1	
1,2-Dichloroethane-d4 (Sur)	104		72 - 130				10/24/19 15:16	1	
Toluene-d8 (Sur)	97		70 - 130				10/24/19 15:16	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 22-DD**

Date Collected: 10/18/19 11:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-18**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 16:34	1
Bromoform	ND		1.0		ug/L			10/24/19 16:34	1
Bromomethane	ND		1.0		ug/L			10/24/19 16:34	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 16:34	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 16:34	1
Chloroethane	ND		1.0		ug/L			10/24/19 16:34	1
Chloroform	ND		1.0		ug/L			10/24/19 16:34	1
Chloromethane	ND		1.0		ug/L			10/24/19 16:34	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 16:34	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 16:34	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 16:34	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 16:34	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 16:34	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 16:34	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 16:34	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 16:34	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 16:34	1
cis-1,2-Dichloroethene	10		0.50		ug/L			10/24/19 16:34	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 16:34	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 16:34	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 16:34	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 16:34	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 16:34	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 16:34	1
Tetrachloroethene	ND		0.50		ug/L			10/24/19 16:34	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 16:34	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 16:34	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 16:34	1
Trichloroethene	150		0.50		ug/L			10/24/19 16:34	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 16:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2		0.50		ug/L			10/24/19 16:34	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 16:34	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene		99		67 - 130			10/24/19 16:34	1	
1,2-Dichloroethane-d4 (Sur)		107		72 - 130			10/24/19 16:34	1	
Toluene-d8 (Sur)		99		70 - 130			10/24/19 16:34	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: EB-2**

Date Collected: 10/18/19 12:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-19**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 17:03	1
Bromoform	ND		1.0		ug/L			10/24/19 17:03	1
Bromomethane	ND		1.0		ug/L			10/24/19 17:03	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 17:03	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 17:03	1
Chloroethane	ND		1.0		ug/L			10/24/19 17:03	1
Chloroform	ND		1.0		ug/L			10/24/19 17:03	1
Chloromethane	ND		1.0		ug/L			10/24/19 17:03	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 17:03	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 17:03	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 17:03	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 17:03	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 17:03	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 17:03	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 17:03	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 17:03	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 17:03	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 17:03	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 17:03	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 17:03	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 17:03	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 17:03	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 17:03	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 17:03	1
Tetrachloroethene	ND		0.50		ug/L			10/24/19 17:03	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/24/19 17:03	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/24/19 17:03	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/24/19 17:03	1
Trichloroethene	ND		0.50		ug/L			10/24/19 17:03	1
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 17:03	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 17:03	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromo fluorobenzene	99		67 - 130					10/24/19 17:03	1
1,2-Dichloroethane-d4 (Sur)	105		72 - 130					10/24/19 17:03	1
Toluene-d8 (Sur)	98		70 - 130					10/24/19 17:03	1

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 27-S**

Date Collected: 10/18/19 11:33

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-20**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		5.0		ug/L			10/24/19 15:36	10
Bromoform	ND		10		ug/L			10/24/19 15:36	10
Bromomethane	ND		10		ug/L			10/24/19 15:36	10
Carbon tetrachloride	ND		5.0		ug/L			10/24/19 15:36	10
Chlorobenzene	ND		5.0		ug/L			10/24/19 15:36	10
Chloroethane	ND		10		ug/L			10/24/19 15:36	10
Chloroform	ND		10		ug/L			10/24/19 15:36	10
Chloromethane	ND		10		ug/L			10/24/19 15:36	10
Chlorodibromomethane	ND		5.0		ug/L			10/24/19 15:36	10
1,2-Dichlorobenzene	ND		5.0		ug/L			10/24/19 15:36	10
<b>1,3-Dichlorobenzene</b>	<b>30</b>		5.0		ug/L			10/24/19 15:36	10
<b>1,4-Dichlorobenzene</b>	<b>5.3</b>		5.0		ug/L			10/24/19 15:36	10
Ethylene Dibromide	ND		5.0		ug/L			10/24/19 15:36	10
Dichlorodifluoromethane	ND		5.0		ug/L			10/24/19 15:36	10
1,1-Dichloroethane	ND		5.0		ug/L			10/24/19 15:36	10
1,2-Dichloroethane	ND		5.0		ug/L			10/24/19 15:36	10
1,1-Dichloroethene	ND		5.0		ug/L			10/24/19 15:36	10
<b>cis-1,2-Dichloroethene</b>	<b>290</b>		5.0		ug/L			10/24/19 15:36	10
<b>trans-1,2-Dichloroethene</b>	<b>14</b>		5.0		ug/L			10/24/19 15:36	10
1,2-Dichloropropane	ND		5.0		ug/L			10/24/19 15:36	10
<b>cis-1,3-Dichloropropene</b>	<b>ND</b>		5.0		ug/L			10/24/19 15:36	10
<b>trans-1,3-Dichloropropene</b>	<b>ND</b>		5.0		ug/L			10/24/19 15:36	10
Methylene Chloride	ND		50		ug/L			10/24/19 15:36	10
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/24/19 15:36	10
Tetrachloroethene	ND		5.0		ug/L			10/24/19 15:36	10
<b>1,2,4-Trichlorobenzene</b>	<b>14</b>		10		ug/L			10/24/19 15:36	10
1,1,1-Trichloroethane	ND		5.0		ug/L			10/24/19 15:36	10
1,1,2-Trichloroethane	ND		5.0		ug/L			10/24/19 15:36	10
<b>Trichloroethene</b>	<b>35</b>		5.0		ug/L			10/24/19 15:36	10
Trichlorofluoromethane	ND		10		ug/L			10/24/19 15:36	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/24/19 15:36	10
Vinyl chloride	15		5.0		ug/L			10/24/19 15:36	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromo fluorobenzene	100		67 - 130		10/24/19 15:36	10
1,2-Dichloroethane-d4 (Sur)	103		72 - 130		10/24/19 15:36	10
Toluene-d8 (Sur)	98		70 - 130		10/24/19 15:36	10

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 2-D**

Date Collected: 10/18/19 11:38

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-21**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		5.0		ug/L			10/24/19 16:05	10
Bromoform	ND		10		ug/L			10/24/19 16:05	10
Bromomethane	ND		10		ug/L			10/24/19 16:05	10
Carbon tetrachloride	ND		5.0		ug/L			10/24/19 16:05	10
Chlorobenzene	ND		5.0		ug/L			10/24/19 16:05	10
Chloroethane	ND		10		ug/L			10/24/19 16:05	10
Chloroform	ND		10		ug/L			10/24/19 16:05	10
Chloromethane	ND		10		ug/L			10/24/19 16:05	10
Chlorodibromomethane	ND		5.0		ug/L			10/24/19 16:05	10
1,2-Dichlorobenzene	ND		5.0		ug/L			10/24/19 16:05	10
<b>1,3-Dichlorobenzene</b>	<b>31</b>		5.0		ug/L			10/24/19 16:05	10
<b>1,4-Dichlorobenzene</b>	<b>5.4</b>		5.0		ug/L			10/24/19 16:05	10
Ethylene Dibromide	ND		5.0		ug/L			10/24/19 16:05	10
Dichlorodifluoromethane	ND		5.0		ug/L			10/24/19 16:05	10
1,1-Dichloroethane	ND		5.0		ug/L			10/24/19 16:05	10
1,2-Dichloroethane	ND		5.0		ug/L			10/24/19 16:05	10
1,1-Dichloroethene	ND		5.0		ug/L			10/24/19 16:05	10
<b>cis-1,2-Dichloroethene</b>	<b>290</b>		5.0		ug/L			10/24/19 16:05	10
<b>trans-1,2-Dichloroethene</b>	<b>15</b>		5.0		ug/L			10/24/19 16:05	10
1,2-Dichloropropane	ND		5.0		ug/L			10/24/19 16:05	10
<b>cis-1,3-Dichloropropene</b>	<b>ND</b>		5.0		ug/L			10/24/19 16:05	10
<b>trans-1,3-Dichloropropene</b>	<b>ND</b>		5.0		ug/L			10/24/19 16:05	10
Methylene Chloride	ND		50		ug/L			10/24/19 16:05	10
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/24/19 16:05	10
Tetrachloroethene	ND		5.0		ug/L			10/24/19 16:05	10
<b>1,2,4-Trichlorobenzene</b>	<b>15</b>		10		ug/L			10/24/19 16:05	10
1,1,1-Trichloroethane	ND		5.0		ug/L			10/24/19 16:05	10
1,1,2-Trichloroethane	ND		5.0		ug/L			10/24/19 16:05	10
<b>Trichloroethene</b>	<b>34</b>		5.0		ug/L			10/24/19 16:05	10
Trichlorofluoromethane	ND		10		ug/L			10/24/19 16:05	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/24/19 16:05	10
Vinyl chloride	16		5.0		ug/L			10/24/19 16:05	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromo fluorobenzene	100		67 - 130		10/24/19 16:05	10
1,2-Dichloroethane-d4 (Sur)	104		72 - 130		10/24/19 16:05	10
Toluene-d8 (Sur)	98		70 - 130		10/24/19 16:05	10

Eurofins TestAmerica, Pleasanton

# Surrogate Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (67-130)	DCA (72-130)	TOL (70-130)
720-95667-1	35-DDD	99	107	97
720-95667-2	15-S	100	105	96
720-95667-2 MS	15-S	100	104	98
720-95667-2 MSD	15-S	98	103	99
720-95667-3	29-S	101	105	97
720-95667-3 MS	29-S	100	105	98
720-95667-3 MSD	29-S	101	105	99
720-95667-4	29-D	100	104	96
720-95667-5	36-D	103	93	98
720-95667-6	52-D	102	94	98
720-95667-7	53-D	101	101	98
720-95667-7 MS	53-D	101	100	100
720-95667-7 MSD	53-D	98	99	99
720-95667-8	27-D	103	104	96
720-95667-9	1-D	102	106	96
720-95667-10	36-DD	100	107	96
720-95667-11	EB-1	101	101	98
720-95667-12	36-S	101	108	97
720-95667-13	37-S	100	107	97
720-95667-14	28-D	100	108	98
720-95667-15	27-DD	99	106	97
720-95667-16	28-S	100	107	101
720-95667-17	22-S	99	104	97
720-95667-17 MS	22-S	102	106	100
720-95667-17 MSD	22-S	101	105	99
720-95667-18	22-DD	99	107	99
720-95667-19	EB-2	99	105	98
720-95667-20	27-S	100	103	98
720-95667-21	2-D	100	104	98
LCS 720-275000/10	Lab Control Sample	102	102	100
LCS 720-275001/4	Lab Control Sample	101	92	98
LCS 720-275057/5	Lab Control Sample	98	102	99
LCS 720-275067/5	Lab Control Sample	100	101	98
LCS 720-275069/5	Lab Control Sample	101	93	97
LCS 720-275070/5	Lab Control Sample	98	98	101
LCSD 720-275000/5	Lab Control Sample Dup	101	100	99
LCSD 720-275001/5	Lab Control Sample Dup	98	92	99
LCSD 720-275057/6	Lab Control Sample Dup	103	108	100
LCSD 720-275067/6	Lab Control Sample Dup	99	101	99
LCSD 720-275069/6	Lab Control Sample Dup	100	93	97
LCSD 720-275070/6	Lab Control Sample Dup	101	100	99
MB 720-275000/8	Method Blank	102	108	98
MB 720-275001/9	Method Blank	103	96	97
MB 720-275057/4	Method Blank	102	108	98
MB 720-275067/4	Method Blank	100	104	97
MB 720-275069/4	Method Blank	99	94	97
MB 720-275070/4	Method Blank	97	103	100

### Surrogate Legend

BFB = 4-Bromofluorobenzene

Eurofins TestAmerica, Pleasanton

## Surrogate Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Job ID: 720-95667-1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID:** MB 720-275000/8

**Matrix:** Water

**Analysis Batch:** 275000

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Dichlorobromomethane	ND				0.50		ug/L			10/23/19 12:04	1
Bromoform	ND				1.0		ug/L			10/23/19 12:04	1
Bromomethane	ND				1.0		ug/L			10/23/19 12:04	1
Carbon tetrachloride	ND				0.50		ug/L			10/23/19 12:04	1
Chlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
Chloroethane	ND				1.0		ug/L			10/23/19 12:04	1
Chloroform	ND				1.0		ug/L			10/23/19 12:04	1
Chloromethane	ND				1.0		ug/L			10/23/19 12:04	1
Chlorodibromomethane	ND				0.50		ug/L			10/23/19 12:04	1
1,2-Dichlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
1,3-Dichlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
1,4-Dichlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
Ethylene Dibromide	ND				0.50		ug/L			10/23/19 12:04	1
Dichlorodifluoromethane	ND				0.50		ug/L			10/23/19 12:04	1
1,1-Dichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
1,2-Dichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
1,1-Dichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
cis-1,2-Dichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
trans-1,2-Dichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
1,2-Dichloropropane	ND				0.50		ug/L			10/23/19 12:04	1
cis-1,3-Dichloropropene	ND				0.50		ug/L			10/23/19 12:04	1
trans-1,3-Dichloropropene	ND				0.50		ug/L			10/23/19 12:04	1
Methylene Chloride	ND				5.0		ug/L			10/23/19 12:04	1
1,1,2,2-Tetrachloroethane	ND				0.50		ug/L			10/23/19 12:04	1
Tetrachloroethene	ND				0.50		ug/L			10/23/19 12:04	1
1,2,4-Trichlorobenzene	ND				1.0		ug/L			10/23/19 12:04	1
1,1,1-Trichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
1,1,2-Trichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
Trichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
Trichlorofluoromethane	ND				1.0		ug/L			10/23/19 12:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				0.50		ug/L			10/23/19 12:04	1
Vinyl chloride	ND				0.50		ug/L			10/23/19 12:04	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
	Result	Qualifier									
4-Bromofluorobenzene	102				67 - 130					10/23/19 12:04	1
1,2-Dichloroethane-d4 (Sur)	108				72 - 130					10/23/19 12:04	1
Toluene-d8 (Sur)	98				70 - 130					10/23/19 12:04	1

**Lab Sample ID:** LCS 720-275000/10

**Matrix:** Water

**Analysis Batch:** 275000

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Dichlorobromomethane	25.0	27.6		ug/L		110	81 - 130	
Bromoform	25.0	28.2		ug/L		113	75 - 127	
Bromomethane	25.0	25.3		ug/L		101	70 - 132	
Carbon tetrachloride	25.0	26.9		ug/L		108	72 - 142	
Chlorobenzene	25.0	25.4		ug/L		102	76 - 116	

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95667-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-275000/10

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 275000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
						Limits	
Chloroethane	25.0	26.4		ug/L		106	70 - 131
Chloroform	25.0	25.3		ug/L		101	82 - 119
Chloromethane	25.0	26.7		ug/L		107	49 - 134
Chlorodibromomethane	25.0	27.5		ug/L		110	77 - 133
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	77 - 117
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	76 - 116
1,4-Dichlorobenzene	25.0	25.3		ug/L		101	76 - 116
Ethylene Dibromide	25.0	25.1		ug/L		100	80 - 121
Dichlorodifluoromethane	25.0	23.9		ug/L		96	21 - 150
1,1-Dichloroethane	25.0	26.2		ug/L		105	77 - 119
1,2-Dichloroethane	25.0	26.0		ug/L		104	73 - 122
1,1-Dichloroethene	25.0	25.5		ug/L		102	69 - 119
cis-1,2-Dichloroethene	25.0	27.2		ug/L		109	77 - 117
trans-1,2-Dichloroethene	25.0	25.2		ug/L		101	79 - 117
1,2-Dichloropropane	25.0	26.9		ug/L		108	79 - 119
cis-1,3-Dichloropropene	25.0	26.1		ug/L		104	82 - 119
trans-1,3-Dichloropropene	25.0	24.9		ug/L		99	76 - 122
Methylene Chloride	25.0	24.9		ug/L		100	75 - 117
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	70 - 115
Tetrachloroethene	25.0	25.0		ug/L		100	81 - 130
1,2,4-Trichlorobenzene	25.0	26.1		ug/L		104	78 - 120
1,1,1-Trichloroethane	25.0	25.9		ug/L		104	74 - 130
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	80 - 117
Trichloroethene	25.0	24.5		ug/L		98	80 - 123
Trichlorofluoromethane	25.0	26.4		ug/L		106	75 - 141
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.0		ug/L		100	70 - 133
Vinyl chloride	25.0	27.8		ug/L		111	58 - 138

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Sur)	102		72 - 130
Toluene-d8 (Sur)	100		70 - 130

Lab Sample ID: LCSD 720-275000/5

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 275000

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
						Limits			
Dichlorobromomethane	25.0	26.9		ug/L		108	81 - 130	3	20
Bromoform	25.0	27.5		ug/L		110	75 - 127	2	20
Bromomethane	25.0	25.1		ug/L		100	70 - 132	1	20
Carbon tetrachloride	25.0	26.7		ug/L		107	72 - 142	1	20
Chlorobenzene	25.0	25.2		ug/L		101	76 - 116	1	20
Chloroethane	25.0	25.9		ug/L		104	70 - 131	2	20
Chloroform	25.0	24.9		ug/L		100	82 - 119	1	20
Chloromethane	25.0	26.2		ug/L		105	49 - 134	2	20
Chlorodibromomethane	25.0	26.4		ug/L		106	77 - 133	4	20
1,2-Dichlorobenzene	25.0	23.6		ug/L		94	77 - 117	0	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-275000/5				Client Sample ID: Lab Control Sample Dup					
				Prep Type: Total/NA					
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
1,3-Dichlorobenzene	25.0	24.7		ug/L	99	76 - 116		1	20
1,4-Dichlorobenzene	25.0	24.9		ug/L	100	76 - 116		2	20
Ethylene Dibromide	25.0	24.3		ug/L	97	80 - 121		3	20
Dichlorodifluoromethane	25.0	23.5		ug/L	94	21 - 150		2	20
1,1-Dichloroethane	25.0	26.0		ug/L	104	77 - 119		1	20
1,2-Dichloroethane	25.0	25.2		ug/L	101	73 - 122		3	20
1,1-Dichloroethene	25.0	25.5		ug/L	102	69 - 119		0	20
cis-1,2-Dichloroethene	25.0	26.8		ug/L	107	77 - 117		2	20
trans-1,2-Dichloroethene	25.0	24.9		ug/L	100	79 - 117		1	20
1,2-Dichloropropane	25.0	26.1		ug/L	104	79 - 119		3	20
cis-1,3-Dichloropropene	25.0	25.3		ug/L	101	82 - 119		3	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L	97	76 - 122		3	20
Methylene Chloride	25.0	24.6		ug/L	99	75 - 117		1	20
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L	102	70 - 115		2	20
Tetrachloroethene	25.0	24.9		ug/L	99	81 - 130		1	20
1,2,4-Trichlorobenzene	25.0	25.8		ug/L	103	78 - 120		1	20
1,1,1-Trichloroethane	25.0	25.6		ug/L	102	74 - 130		1	20
1,1,2-Trichloroethane	25.0	25.1		ug/L	100	80 - 117		3	20
Trichloroethene	25.0	24.4		ug/L	98	80 - 123		0	20
Trichlorofluoromethane	25.0	26.1		ug/L	104	75 - 141		1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.5		ug/L	98	70 - 133		2	20
Vinyl chloride	25.0	27.4		ug/L	110	58 - 138		1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	101		67 - 130						
1,2-Dichloroethane-d4 (Surr)	100		72 - 130						
Toluene-d8 (Surr)	99		70 - 130						

Lab Sample ID: 720-95667-2 MS

Matrix: Water

Analysis Batch: 275000

Client Sample ID: 15-S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorobromomethane	ND		25.0	28.0		ug/L	112	60 - 140	
Bromoform	ND		25.0	28.1		ug/L	112	56 - 140	
Bromomethane	ND		25.0	25.7		ug/L	103	23 - 140	
Carbon tetrachloride	ND		25.0	26.6		ug/L	107	60 - 140	
Chlorobenzene	ND		25.0	25.7		ug/L	103	60 - 140	
Chloroethane	ND		25.0	26.4		ug/L	106	51 - 140	
Chloroform	ND		25.0	26.2		ug/L	105	60 - 140	
Chloromethane	ND		25.0	27.6		ug/L	111	52 - 140	
Chlorodibromomethane	ND		25.0	27.3		ug/L	109	60 - 140	
1,2-Dichlorobenzene	ND		25.0	24.5		ug/L	98	60 - 140	
1,3-Dichlorobenzene	ND		25.0	25.0		ug/L	100	60 - 140	
1,4-Dichlorobenzene	ND		25.0	25.0		ug/L	100	60 - 140	
Ethylene Dibromide	ND		25.0	25.1		ug/L	100	60 - 140	
Dichlorodifluoromethane	ND		25.0	23.1		ug/L	92	38 - 140	
1,1-Dichloroethane	ND		25.0	27.4		ug/L	109	60 - 140	

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 720-95667-2 MS**

**Matrix: Water**

**Analysis Batch: 275000**

**Client Sample ID: 15-S**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
1,2-Dichloroethane	ND		25.0	26.8		ug/L		107	60 - 140
1,1-Dichloroethene	ND		25.0	25.9		ug/L		103	60 - 140
cis-1,2-Dichloroethene	ND		25.0	28.7		ug/L		113	60 - 140
trans-1,2-Dichloroethene	ND		25.0	25.5		ug/L		101	60 - 140
1,2-Dichloropropane	ND		25.0	27.7		ug/L		111	60 - 140
cis-1,3-Dichloropropene	ND		25.0	25.9		ug/L		104	60 - 140
trans-1,3-Dichloropropene	ND		25.0	24.5		ug/L		98	60 - 140
Methylene Chloride	ND		25.0	24.3		ug/L		97	40 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	27.9		ug/L		112	60 - 140
Tetrachloroethene	ND		25.0	24.0		ug/L		96	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	23.8		ug/L		95	60 - 140
1,1,1-Trichloroethane	ND		25.0	26.0		ug/L		104	60 - 140
1,1,2-Trichloroethane	ND		25.0	26.0		ug/L		104	60 - 140
Trichloroethene	4.6		25.0	28.5		ug/L		96	60 - 140
Trichlorofluoromethane	ND		25.0	25.2		ug/L		101	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.0		ug/L		96	60 - 140
Vinyl chloride	ND		25.0	28.3		ug/L		113	58 - 140
<b>MS MS</b>									
Surrogate	%Recovery	Qualifier		MS	MS				
4-Bromofluorobenzene	100			67 - 130					
1,2-Dichloroethane-d4 (Surr)	104			72 - 130					
Toluene-d8 (Surr)	98			70 - 130					

**Lab Sample ID: 720-95667-2 MSD**

**Matrix: Water**

**Analysis Batch: 275000**

**Client Sample ID: 15-S**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Dichlorobromomethane	ND		25.0	27.9		ug/L		112	60 - 140	0	20
Bromoform	ND		25.0	27.7		ug/L		111	56 - 140	1	20
Bromomethane	ND		25.0	24.9		ug/L		100	23 - 140	3	20
Carbon tetrachloride	ND		25.0	26.4		ug/L		106	60 - 140	1	20
Chlorobenzene	ND		25.0	24.6		ug/L		98	60 - 140	4	20
Chloroethane	ND		25.0	26.0		ug/L		104	51 - 140	2	20
Chloroform	ND		25.0	25.6		ug/L		102	60 - 140	2	20
Chloromethane	ND		25.0	26.9		ug/L		108	52 - 140	3	20
Chlorodibromomethane	ND		25.0	27.6		ug/L		110	60 - 140	1	20
1,2-Dichlorobenzene	ND		25.0	24.3		ug/L		97	60 - 140	1	20
1,3-Dichlorobenzene	ND		25.0	24.9		ug/L		99	60 - 140	1	20
1,4-Dichlorobenzene	ND		25.0	25.1		ug/L		100	60 - 140	0	20
Ethylene Dibromide	ND		25.0	25.3		ug/L		101	60 - 140	1	20
Dichlorodifluoromethane	ND		25.0	22.2		ug/L		89	38 - 140	4	20
1,1-Dichloroethane	ND		25.0	26.7		ug/L		106	60 - 140	2	20
1,2-Dichloroethane	ND		25.0	26.3		ug/L		105	60 - 140	2	20
1,1-Dichloroethene	ND		25.0	25.2		ug/L		101	60 - 140	3	20
cis-1,2-Dichloroethene	ND		25.0	28.0		ug/L		110	60 - 140	2	20
trans-1,2-Dichloroethene	ND		25.0	25.1		ug/L		99	60 - 140	2	20
1,2-Dichloropropane	ND		25.0	27.4		ug/L		110	60 - 140	1	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95667-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 720-95667-2 MSD**

**Matrix: Water**

**Analysis Batch: 275000**

**Client Sample ID: 15-S**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
cis-1,3-Dichloropropene	ND		25.0	25.9		ug/L		103	60 - 140	0	20
trans-1,3-Dichloropropene	ND		25.0	24.9		ug/L		99	60 - 140	1	20
Methylene Chloride	ND		25.0	24.0		ug/L		96	40 - 140	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	28.2		ug/L		113	60 - 140	1	20
Tetrachloroethene	ND		25.0	23.8		ug/L		95	60 - 140	1	20
1,2,4-Trichlorobenzene	ND		25.0	24.2		ug/L		97	60 - 140	2	20
1,1,1-Trichloroethane	ND		25.0	25.9		ug/L		103	60 - 140	1	20
1,1,2-Trichloroethane	ND		25.0	26.3		ug/L		105	60 - 140	1	20
Trichloroethene	4.6		25.0	28.1		ug/L		94	60 - 140	1	20
Trichlorofluoromethane	ND		25.0	24.7		ug/L		99	60 - 140	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.6		ug/L		94	60 - 140	2	20
Vinyl chloride	ND		25.0	27.3		ug/L		109	58 - 140	4	20
<b>Surrogate</b>											
	<b>MSD</b>	<b>MSD</b>									
	<b>%Recovery</b>	<b>Qualifier</b>			<b>Limits</b>						
4-Bromofluorobenzene	98				67 - 130						
1,2-Dichloroethane-d4 (Sur)	103				72 - 130						
Toluene-d8 (Sur)	99				70 - 130						

**Lab Sample ID: MB 720-275001/9**

**Matrix: Water**

**Analysis Batch: 275001**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 12:28	1
Bromoform	ND		1.0		ug/L			10/23/19 12:28	1
Bromomethane	ND		1.0		ug/L			10/23/19 12:28	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 12:28	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 12:28	1
Chloroethane	ND		1.0		ug/L			10/23/19 12:28	1
Chloroform	ND		1.0		ug/L			10/23/19 12:28	1
Chloromethane	ND		1.0		ug/L			10/23/19 12:28	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 12:28	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 12:28	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 12:28	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 12:28	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 12:28	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 12:28	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 12:28	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 12:28	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 12:28	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 12:28	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 12:28	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 12:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 12:28	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 12:28	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 12:28	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 12:28	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 12:28	1

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** MB 720-275001/9

**Matrix:** Water

**Analysis Batch:** 275001

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
1,2,4-Trichlorobenzene	ND				1.0		ug/L			10/23/19 12:28	1
1,1,1-Trichloroethane	ND				0.50		ug/L			10/23/19 12:28	1
1,1,2-Trichloroethane	ND				0.50		ug/L			10/23/19 12:28	1
Trichloroethene	ND				0.50		ug/L			10/23/19 12:28	1
Trichlorofluoromethane	ND				1.0		ug/L			10/23/19 12:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				0.50		ug/L			10/23/19 12:28	1
Vinyl chloride	ND				0.50		ug/L			10/23/19 12:28	1

**MB MB**

<b>Surrogate</b>	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Bromofluorobenzene	103		67 - 130				10/23/19 12:28	1
1,2-Dichloroethane-d4 (Sur)	96		72 - 130				10/23/19 12:28	1
Toluene-d8 (Sur)	97		70 - 130				10/23/19 12:28	1

**Lab Sample ID:** LCS 720-275001/4

**Matrix:** Water

**Analysis Batch:** 275001

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LC	LC	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
		Spike	LC							
Dichlorobromomethane	25.0		24.5			ug/L		98	81 - 130	
Bromoform	25.0		26.2			ug/L		105	75 - 127	
Bromomethane	25.0		25.4			ug/L		102	70 - 132	
Carbon tetrachloride	25.0		24.1			ug/L		96	72 - 142	
Chlorobenzene	25.0		25.0			ug/L		100	76 - 116	
Chloroethane	25.0		25.9			ug/L		104	70 - 131	
Chloroform	25.0		24.1			ug/L		96	82 - 119	
Chloromethane	25.0		26.7			ug/L		107	49 - 134	
Chlorodibromomethane	25.0		24.8			ug/L		99	77 - 133	
1,2-Dichlorobenzene	25.0		24.1			ug/L		96	77 - 117	
1,3-Dichlorobenzene	25.0		24.7			ug/L		99	76 - 116	
1,4-Dichlorobenzene	25.0		24.5			ug/L		98	76 - 116	
Ethylene Dibromide	25.0		25.3			ug/L		101	80 - 121	
Dichlorodifluoromethane	25.0		25.4			ug/L		102	21 - 150	
1,1-Dichloroethane	25.0		24.5			ug/L		98	77 - 119	
1,2-Dichloroethane	25.0		24.0			ug/L		96	73 - 122	
1,1-Dichloroethene	25.0		23.9			ug/L		96	69 - 119	
cis-1,2-Dichloroethene	25.0		24.0			ug/L		96	77 - 117	
trans-1,2-Dichloroethene	25.0		24.5			ug/L		98	79 - 117	
1,2-Dichloropropane	25.0		25.0			ug/L		100	79 - 119	
cis-1,3-Dichloropropene	25.0		25.3			ug/L		101	82 - 119	
trans-1,3-Dichloropropene	25.0		26.0			ug/L		104	76 - 122	
Methylene Chloride	25.0		24.1			ug/L		96	75 - 117	
1,1,2,2-Tetrachloroethane	25.0		24.5			ug/L		98	70 - 115	
Tetrachloroethene	25.0		25.1			ug/L		100	81 - 130	
1,2,4-Trichlorobenzene	25.0		26.1			ug/L		105	78 - 120	
1,1,1-Trichloroethane	25.0		24.0			ug/L		96	74 - 130	
1,1,2-Trichloroethane	25.0		25.5			ug/L		102	80 - 117	
Trichloroethene	25.0		25.5			ug/L		102	80 - 123	
Trichlorofluoromethane	25.0		24.4			ug/L		98	75 - 141	

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95667-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 720-275001/4**

**Matrix: Water**

**Analysis Batch: 275001**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.1		ug/L	100	70 - 133	
Vinyl chloride	25.0	28.1		ug/L	113	58 - 138	
<b>Surrogate</b>							
4-Bromofluorobenzene	101		67 - 130				
1,2-Dichloroethane-d4 (Sur)	92		72 - 130				
Toluene-d8 (Sur)	98		70 - 130				

**Lab Sample ID: LCSD 720-275001/5**

**Matrix: Water**

**Analysis Batch: 275001**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	25.0	24.6		ug/L	98	81 - 130		1	20
Bromoform	25.0	26.0		ug/L	104	75 - 127		1	20
Bromomethane	25.0	25.6		ug/L	102	70 - 132		1	20
Carbon tetrachloride	25.0	24.2		ug/L	97	72 - 142		0	20
Chlorobenzene	25.0	24.6		ug/L	98	76 - 116		2	20
Chloroethane	25.0	25.7		ug/L	103	70 - 131		1	20
Chloroform	25.0	24.1		ug/L	96	82 - 119		0	20
Chloromethane	25.0	26.2		ug/L	105	49 - 134		2	20
Chlorodibromomethane	25.0	24.7		ug/L	99	77 - 133		0	20
1,2-Dichlorobenzene	25.0	24.1		ug/L	96	77 - 117		0	20
1,3-Dichlorobenzene	25.0	24.4		ug/L	97	76 - 116		2	20
1,4-Dichlorobenzene	25.0	24.5		ug/L	98	76 - 116		0	20
Ethylene Dibromide	25.0	25.1		ug/L	100	80 - 121		1	20
Dichlorodifluoromethane	25.0	25.0		ug/L	100	21 - 150		2	20
1,1-Dichloroethane	25.0	24.4		ug/L	97	77 - 119		1	20
1,2-Dichloroethane	25.0	24.0		ug/L	96	73 - 122		0	20
1,1-Dichloroethene	25.0	24.0		ug/L	96	69 - 119		0	20
cis-1,2-Dichloroethene	25.0	24.3		ug/L	97	77 - 117		1	20
trans-1,2-Dichloroethene	25.0	24.5		ug/L	98	79 - 117		0	20
1,2-Dichloropropane	25.0	25.2		ug/L	101	79 - 119		1	20
cis-1,3-Dichloropropene	25.0	25.5		ug/L	102	82 - 119		1	20
trans-1,3-Dichloropropene	25.0	26.2		ug/L	105	76 - 122		1	20
Methylene Chloride	25.0	24.0		ug/L	96	75 - 117		0	20
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L	98	70 - 115		0	20
Tetrachloroethene	25.0	25.3		ug/L	101	81 - 130		1	20
1,2,4-Trichlorobenzene	25.0	26.3		ug/L	105	78 - 120		1	20
1,1,1-Trichloroethane	25.0	23.9		ug/L	96	74 - 130		0	20
1,1,2-Trichloroethane	25.0	25.5		ug/L	102	80 - 117		0	20
Trichloroethene	25.0	25.2		ug/L	101	80 - 123		1	20
Trichlorofluoromethane	25.0	24.0		ug/L	96	75 - 141		2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.9		ug/L	100	70 - 133		1	20
Vinyl chloride	25.0	28.0		ug/L	112	58 - 138		1	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-275001/5

Matrix: Water

Analysis Batch: 275001

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Surrogate	LCSD	LCSD	
	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Sur)	92		72 - 130
Toluene-d8 (Sur)	99		70 - 130

Lab Sample ID: 720-95667-7 MS

Matrix: Water

Analysis Batch: 275001

Client Sample ID: 53-D  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Dichlorobromomethane	ND		25.0	25.5		ug/L		102	60 - 140
Bromoform	ND		25.0	27.0		ug/L		108	56 - 140
Bromomethane	ND		25.0	24.3		ug/L		97	23 - 140
Carbon tetrachloride	ND		25.0	25.1		ug/L		100	60 - 140
Chlorobenzene	ND		25.0	24.3		ug/L		97	60 - 140
Chloroethane	ND		25.0	24.1		ug/L		96	51 - 140
Chloroform	ND		25.0	25.3		ug/L		101	60 - 140
Chloromethane	ND		25.0	24.8		ug/L		99	52 - 140
Chlorodibromomethane	ND		25.0	25.9		ug/L		104	60 - 140
1,2-Dichlorobenzene	ND		25.0	24.4		ug/L		98	60 - 140
1,3-Dichlorobenzene	ND		25.0	24.5		ug/L		98	60 - 140
1,4-Dichlorobenzene	ND		25.0	24.4		ug/L		98	60 - 140
Ethylene Dibromide	ND		25.0	25.7		ug/L		103	60 - 140
Dichlorodifluoromethane	ND		25.0	25.1		ug/L		101	38 - 140
1,1-Dichloroethane	ND		25.0	24.8		ug/L		98	60 - 140
1,2-Dichloroethane	ND		25.0	25.8		ug/L		103	60 - 140
1,1-Dichloroethene	ND		25.0	23.4		ug/L		93	60 - 140
cis-1,2-Dichloroethene	ND		25.0	24.4		ug/L		97	60 - 140
trans-1,2-Dichloroethene	ND		25.0	24.1		ug/L		96	60 - 140
1,2-Dichloropropane	ND		25.0	24.8		ug/L		99	60 - 140
cis-1,3-Dichloropropene	ND		25.0	25.6		ug/L		103	60 - 140
trans-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	60 - 140
Methylene Chloride	ND		25.0	23.9		ug/L		96	40 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	24.1		ug/L		96	60 - 140
Tetrachloroethene	ND		25.0	24.9		ug/L		100	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	25.8		ug/L		103	60 - 140
1,1,1-Trichloroethane	ND		25.0	25.1		ug/L		99	60 - 140
1,1,2-Trichloroethane	ND		25.0	25.7		ug/L		103	60 - 140
Trichloroethene	6.9		25.0	31.8		ug/L		100	60 - 140
Trichlorofluoromethane	ND		25.0	25.0		ug/L		100	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.2		ug/L		96	60 - 140
Vinyl chloride	ND		25.0	25.8		ug/L		103	58 - 140

Surrogate	MS	MS	
	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Sur)	100		72 - 130
Toluene-d8 (Sur)	100		70 - 130

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-95667-7 MSD

Matrix: Water

Analysis Batch: 275001

Client Sample ID: 53-D  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Dichlorobromomethane	ND		25.0	24.7		ug/L		99	60 - 140	3	20
Bromoform	ND		25.0	24.9		ug/L		99	56 - 140	8	20
Bromomethane	ND		25.0	24.6		ug/L		98	23 - 140	1	20
Carbon tetrachloride	ND		25.0	25.2		ug/L		101	60 - 140	1	20
Chlorobenzene	ND		25.0	24.3		ug/L		97	60 - 140	0	20
Chloroethane	ND		25.0	24.4		ug/L		97	51 - 140	1	20
Chloroform	ND		25.0	24.7		ug/L		99	60 - 140	2	20
Chloromethane	ND		25.0	25.5		ug/L		102	52 - 140	3	20
Chlorodibromomethane	ND		25.0	24.9		ug/L		100	60 - 140	4	20
1,2-Dichlorobenzene	ND		25.0	24.1		ug/L		96	60 - 140	2	20
1,3-Dichlorobenzene	ND		25.0	24.6		ug/L		98	60 - 140	0	20
1,4-Dichlorobenzene	ND		25.0	24.1		ug/L		96	60 - 140	1	20
Ethylene Dibromide	ND		25.0	24.4		ug/L		98	60 - 140	5	20
Dichlorodifluoromethane	ND		25.0	25.4		ug/L		102	38 - 140	1	20
1,1-Dichloroethane	ND		25.0	24.6		ug/L		97	60 - 140	1	20
1,2-Dichloroethane	ND		25.0	24.7		ug/L		99	60 - 140	4	20
1,1-Dichloroethene	ND		25.0	23.9		ug/L		95	60 - 140	2	20
cis-1,2-Dichloroethene	ND		25.0	24.1		ug/L		96	60 - 140	1	20
trans-1,2-Dichloroethene	ND		25.0	24.0		ug/L		96	60 - 140	0	20
1,2-Dichloropropane	ND		25.0	24.7		ug/L		99	60 - 140	0	20
cis-1,3-Dichloropropene	ND		25.0	24.9		ug/L		100	60 - 140	3	20
trans-1,3-Dichloropropene	ND		25.0	25.8		ug/L		103	60 - 140	3	20
Methylene Chloride	ND		25.0	23.6		ug/L		95	40 - 140	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.9		ug/L		92	60 - 140	5	20
Tetrachloroethene	ND		25.0	24.9		ug/L		100	60 - 140	0	20
1,2,4-Trichlorobenzene	ND		25.0	26.1		ug/L		104	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	24.9		ug/L		99	60 - 140	0	20
1,1,2-Trichloroethane	ND		25.0	24.8		ug/L		99	60 - 140	4	20
Trichloroethene	6.9		25.0	31.7		ug/L		99	60 - 140	0	20
Trichlorofluoromethane	ND		25.0	25.0		ug/L		100	60 - 140	0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.5		ug/L		97	60 - 140	1	20
Vinyl chloride	ND		25.0	27.0		ug/L		108	58 - 140	5	20
<b>Surrogate</b>		<b>MSD</b>	<b>MSD</b>								
		<b>%Recovery</b>	<b>Qualifier</b>			<b>Limits</b>					
4-Bromofluorobenzene		98		67 - 130							
1,2-Dichloroethane-d4 (Sur)		99		72 - 130							
Toluene-d8 (Sur)		99		70 - 130							

Lab Sample ID: MB 720-275057/4

Matrix: Water

Analysis Batch: 275057

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 19:04	1
Bromoform	ND		1.0		ug/L			10/23/19 19:04	1
Bromomethane	ND		1.0		ug/L			10/23/19 19:04	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 19:04	1

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-275057/4

Matrix: Water

Analysis Batch: 275057

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		ND		0.50		ug/L			10/23/19 19:04	1
Chloroethane	ND		ND		1.0		ug/L			10/23/19 19:04	1
Chloroform	ND		ND		1.0		ug/L			10/23/19 19:04	1
Chloromethane	ND		ND		1.0		ug/L			10/23/19 19:04	1
Chlorodibromomethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,2-Dichlorobenzene	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,3-Dichlorobenzene	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,4-Dichlorobenzene	ND		ND		0.50		ug/L			10/23/19 19:04	1
Ethylene Dibromide	ND		ND		0.50		ug/L			10/23/19 19:04	1
Dichlorodifluoromethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,1-Dichloroethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,2-Dichloroethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,1-Dichloroethene	ND		ND		0.50		ug/L			10/23/19 19:04	1
cis-1,2-Dichloroethene	ND		ND		0.50		ug/L			10/23/19 19:04	1
trans-1,2-Dichloroethene	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,2-Dichloropropane	ND		ND		0.50		ug/L			10/23/19 19:04	1
cis-1,3-Dichloropropene	ND		ND		0.50		ug/L			10/23/19 19:04	1
trans-1,3-Dichloropropene	ND		ND		0.50		ug/L			10/23/19 19:04	1
Methylene Chloride	ND		ND		5.0		ug/L			10/23/19 19:04	1
1,1,2,2-Tetrachloroethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
Tetrachloroethene	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,2,4-Trichlorobenzene	ND		ND		1.0		ug/L			10/23/19 19:04	1
1,1,1-Trichloroethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
1,1,2-Trichloroethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
Trichloroethene	ND		ND		0.50		ug/L			10/23/19 19:04	1
Trichlorofluoromethane	ND		ND		1.0		ug/L			10/23/19 19:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		ND		0.50		ug/L			10/23/19 19:04	1
Vinyl chloride	ND		ND		0.50		ug/L			10/23/19 19:04	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102				67 - 130					10/23/19 19:04	1
1,2-Dichloroethane-d4 (Surr)	108				72 - 130					10/23/19 19:04	1
Toluene-d8 (Surr)	98				70 - 130					10/23/19 19:04	1

Lab Sample ID: LCS 720-275057/5

Matrix: Water

Analysis Batch: 275057

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCN	LCN	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Dichlorobromomethane	25.0	27.0		ug/L		108	81 - 130	
Bromoform	25.0	26.8		ug/L		107	75 - 127	
Bromomethane	25.0	25.1		ug/L		100	70 - 132	
Carbon tetrachloride	25.0	26.1		ug/L		104	72 - 142	
Chlorobenzene	25.0	24.3		ug/L		97	76 - 116	
Chloroethane	25.0	26.0		ug/L		104	70 - 131	
Chloroform	25.0	25.0		ug/L		100	82 - 119	
Chloromethane	25.0	27.1		ug/L		108	49 - 134	
Chlorodibromomethane	25.0	26.7		ug/L		107	77 - 133	

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** LCS 720-275057/5

**Matrix:** Water

**Analysis Batch:** 275057

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	25.0	23.4		ug/L	94	77 - 117	
1,3-Dichlorobenzene	25.0	24.5		ug/L	98	76 - 116	
1,4-Dichlorobenzene	25.0	24.6		ug/L	98	76 - 116	
Ethylene Dibromide	25.0	24.5		ug/L	98	80 - 121	
Dichlorodifluoromethane	25.0	22.2		ug/L	89	21 - 150	
1,1-Dichloroethane	25.0	26.2		ug/L	105	77 - 119	
1,2-Dichloroethane	25.0	25.8		ug/L	103	73 - 122	
1,1-Dichloroethene	25.0	25.1		ug/L	100	69 - 119	
cis-1,2-Dichloroethene	25.0	27.1		ug/L	108	77 - 117	
trans-1,2-Dichloroethene	25.0	24.5		ug/L	98	79 - 117	
1,2-Dichloropropane	25.0	26.8		ug/L	107	79 - 119	
cis-1,3-Dichloropropene	25.0	25.4		ug/L	101	82 - 119	
trans-1,3-Dichloropropene	25.0	24.3		ug/L	97	76 - 122	
Methylene Chloride	25.0	25.1		ug/L	100	75 - 117	
1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L	105	70 - 115	
Tetrachloroethene	25.0	24.0		ug/L	96	81 - 130	
1,2,4-Trichlorobenzene	25.0	24.6		ug/L	98	78 - 120	
1,1,1-Trichloroethane	25.0	25.4		ug/L	101	74 - 130	
1,1,2-Trichloroethane	25.0	25.4		ug/L	101	80 - 117	
Trichloroethene	25.0	23.5		ug/L	94	80 - 123	
Trichlorofluoromethane	25.0	24.7		ug/L	99	75 - 141	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.2		ug/L	97	70 - 133	
Vinyl chloride	25.0	27.5		ug/L	110	58 - 138	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>				
		<b>%Recovery</b>	<b>Qualifier</b>				
4-Bromofluorobenzene	98			67 - 130			
1,2-Dichloroethane-d4 (Sur)	102			72 - 130			
Toluene-d8 (Sur)	99			70 - 130			

**Lab Sample ID:** LCSD 720-275057/6

**Matrix:** Water

**Analysis Batch:** 275057

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	25.0	28.3		ug/L		113	81 - 130	4	20
Bromoform	25.0	29.5		ug/L		118	75 - 127	10	20
Bromomethane	25.0	24.2		ug/L		97	70 - 132	4	20
Carbon tetrachloride	25.0	26.0		ug/L		104	72 - 142	0	20
Chlorobenzene	25.0	25.5		ug/L		102	76 - 116	5	20
Chloroethane	25.0	25.2		ug/L		101	70 - 131	3	20
Chloroform	25.0	25.2		ug/L		101	82 - 119	1	20
Chloromethane	25.0	26.0		ug/L		104	49 - 134	4	20
Chlorodibromomethane	25.0	28.9		ug/L		116	77 - 133	8	20
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	77 - 117	2	20
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	76 - 116	2	20
1,4-Dichlorobenzene	25.0	24.8		ug/L		99	76 - 116	1	20
Ethylene Dibromide	25.0	26.5		ug/L		106	80 - 121	8	20
Dichlorodifluoromethane	25.0	21.6		ug/L		87	21 - 150	2	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-275057/6

Matrix: Water

Analysis Batch: 275057

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
1,1-Dichloroethane	25.0	26.3		ug/L		105	77 - 119	0	20
1,2-Dichloroethane	25.0	27.0		ug/L		108	73 - 122	5	20
1,1-Dichloroethene	25.0	24.8		ug/L		99	69 - 119	1	20
cis-1,2-Dichloroethene	25.0	27.4		ug/L		109	77 - 117	1	20
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	79 - 117	0	20
1,2-Dichloropropane	25.0	27.6		ug/L		111	79 - 119	3	20
cis-1,3-Dichloropropene	25.0	26.6		ug/L		106	82 - 119	5	20
trans-1,3-Dichloropropene	25.0	26.1		ug/L		105	76 - 122	7	20
Methylene Chloride	25.0	26.1		ug/L		104	75 - 117	4	20
1,1,2,2-Tetrachloroethane	25.0	27.4		ug/L		110	70 - 115	5	20
Tetrachloroethene	25.0	24.5		ug/L		98	81 - 130	2	20
1,2,4-Trichlorobenzene	25.0	26.3		ug/L		105	78 - 120	7	20
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	74 - 130	1	20
1,1,2-Trichloroethane	25.0	27.4		ug/L		110	80 - 117	8	20
Trichloroethene	25.0	24.0		ug/L		96	80 - 123	2	20
Trichlorofluoromethane	25.0	24.4		ug/L		98	75 - 141	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.2		ug/L		97	70 - 133	0	20
Vinyl chloride	25.0	26.1		ug/L		104	58 - 138	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	108		72 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: 720-95667-3 MS

Matrix: Water

Analysis Batch: 275057

Client Sample ID: 29-S  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorobromomethane	ND		25.0	28.2		ug/L		113	60 - 140
Bromoform	ND		25.0	27.3		ug/L		109	56 - 140
Bromomethane	ND		25.0	24.9		ug/L		99	23 - 140
Carbon tetrachloride	ND		25.0	25.9		ug/L		104	60 - 140
Chlorobenzene	ND		25.0	24.8		ug/L		99	60 - 140
Chloroethane	ND		25.0	25.7		ug/L		103	51 - 140
Chloroform	ND		25.0	25.7		ug/L		103	60 - 140
Chloromethane	ND		25.0	27.4		ug/L		110	52 - 140
Chlorodibromomethane	ND		25.0	27.7		ug/L		111	60 - 140
1,2-Dichlorobenzene	ND		25.0	23.9		ug/L		96	60 - 140
1,3-Dichlorobenzene	ND		25.0	24.6		ug/L		98	60 - 140
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		100	60 - 140
Ethylene Dibromide	ND		25.0	25.4		ug/L		102	60 - 140
Dichlorodifluoromethane	ND		25.0	21.9		ug/L		88	38 - 140
1,1-Dichloroethane	ND		25.0	27.1		ug/L		108	60 - 140
1,2-Dichloroethane	ND		25.0	26.7		ug/L		107	60 - 140
1,1-Dichloroethene	ND		25.0	25.0		ug/L		100	60 - 140
cis-1,2-Dichloroethene	1.8		25.0	29.8		ug/L		112	60 - 140
trans-1,2-Dichloroethene	ND		25.0	24.8		ug/L		99	60 - 140

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 720-95667-3 MS**

**Matrix: Water**

**Analysis Batch: 275057**

**Client Sample ID: 29-S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.
				Result	Qualifier				
1,2-Dichloropropane	ND		25.0	27.9		ug/L		112	60 - 140
cis-1,3-Dichloropropene	ND		25.0	25.9		ug/L		104	60 - 140
trans-1,3-Dichloropropene	ND		25.0	24.9		ug/L		100	60 - 140
Methylene Chloride	ND		25.0	24.6		ug/L		98	40 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	27.5		ug/L		110	60 - 140
Tetrachloroethylene	ND		25.0	23.8		ug/L		94	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	24.2		ug/L		97	60 - 140
1,1,1-Trichloroethane	ND		25.0	25.5		ug/L		101	60 - 140
1,1,2-Trichloroethane	ND		25.0	26.4		ug/L		106	60 - 140
Trichloroethylene	15		25.0	38.7		ug/L		93	60 - 140
Trichlorofluoromethane	ND		25.0	24.3		ug/L		97	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.9		ug/L		96	60 - 140
Vinyl chloride	ND		25.0	27.7		ug/L		111	58 - 140
<b>Surrogate</b>		<b>%Recovery</b>	<b>MS</b>	<b>MS</b>	<b>Qualifer</b>	<b>Limits</b>			
4-Bromofluorobenzene	100				67 - 130				
1,2-Dichloroethane-d4 (Surr)	105				72 - 130				
Toluene-d8 (Surr)	98				70 - 130				

**Lab Sample ID: 720-95667-3 MSD**

**Matrix: Water**

**Analysis Batch: 275057**

**Client Sample ID: 29-S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.	RPD	RPD Limit
				Result	Qualifier						
Dichlorobromomethane	ND		25.0	27.7		ug/L		111	60 - 140	2	20
Bromoform	ND		25.0	27.8		ug/L		111	56 - 140	2	20
Bromomethane	ND		25.0	24.6		ug/L		99	23 - 140	1	20
Carbon tetrachloride	ND		25.0	25.6		ug/L		103	60 - 140	1	20
Chlorobenzene	ND		25.0	24.8		ug/L		99	60 - 140	0	20
Chloroethane	ND		25.0	25.1		ug/L		100	51 - 140	2	20
Chloroform	ND		25.0	25.2		ug/L		101	60 - 140	2	20
Chloromethane	ND		25.0	27.0		ug/L		108	52 - 140	2	20
Chlorodibromomethane	ND		25.0	27.3		ug/L		109	60 - 140	1	20
1,2-Dichlorobenzene	ND		25.0	23.9		ug/L		96	60 - 140	0	20
1,3-Dichlorobenzene	ND		25.0	24.6		ug/L		98	60 - 140	0	20
1,4-Dichlorobenzene	ND		25.0	24.7		ug/L		99	60 - 140	1	20
Ethylene Dibromide	ND		25.0	25.3		ug/L		101	60 - 140	0	20
Dichlorodifluoromethane	ND		25.0	21.6		ug/L		87	38 - 140	1	20
1,1-Dichloroethane	ND		25.0	26.6		ug/L		107	60 - 140	2	20
1,2-Dichloroethane	ND		25.0	26.4		ug/L		105	60 - 140	1	20
1,1-Dichloroethene	ND		25.0	24.5		ug/L		98	60 - 140	2	20
cis-1,2-Dichloroethene	1.8		25.0	29.3		ug/L		110	60 - 140	2	20
trans-1,2-Dichloroethene	ND		25.0	24.5		ug/L		98	60 - 140	2	20
1,2-Dichloropropane	ND		25.0	27.6		ug/L		110	60 - 140	1	20
cis-1,3-Dichloropropene	ND		25.0	25.9		ug/L		104	60 - 140	0	20
trans-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	60 - 140	1	20
Methylene Chloride	ND		25.0	24.5		ug/L		98	40 - 140	0	20
1,1,2,2-Tetrachloroethane	ND		25.0	27.3		ug/L		109	60 - 140	1	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-95667-3 MSD

Matrix: Water

Analysis Batch: 275057

Client Sample ID: 29-S  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Tetrachloroethene	ND		25.0	23.7		ug/L	94	60 - 140	0	20	
1,2,4-Trichlorobenzene	ND		25.0	24.8		ug/L	99	60 - 140	2	20	
1,1,1-Trichloroethane	ND		25.0	25.2		ug/L	100	60 - 140	1	20	
1,1,2-Trichloroethane	ND		25.0	26.2		ug/L	105	60 - 140	1	20	
Trichloroethene	15		25.0	38.1		ug/L	91	60 - 140	2	20	
Trichlorofluoromethane	ND		25.0	23.9		ug/L	96	60 - 140	2	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.5		ug/L	94	60 - 140	1	20	
Vinyl chloride	ND		25.0	26.9		ug/L	108	58 - 140	3	20	
<b>Surrogate</b>		<b>MSD</b>	<b>MSD</b>	<b>%Recovery</b>		<b>Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene	101			67 - 130							
1,2-Dichloroethane-d4 (Sur)	105			72 - 130							
Toluene-d8 (Sur)	99			70 - 130							

Lab Sample ID: MB 720-275067/4

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Dichlorobromomethane	ND		0.50		ug/L	10/24/19 11:18	1				
Bromoform	ND		1.0		ug/L	10/24/19 11:18	1				
Bromomethane	ND		1.0		ug/L	10/24/19 11:18	1				
Carbon tetrachloride	ND		0.50		ug/L	10/24/19 11:18	1				
Chlorobenzene	ND		0.50		ug/L	10/24/19 11:18	1				
Chloroethane	ND		1.0		ug/L	10/24/19 11:18	1				
Chloroform	ND		1.0		ug/L	10/24/19 11:18	1				
Chloromethane	ND		1.0		ug/L	10/24/19 11:18	1				
Chlorodibromomethane	ND		0.50		ug/L	10/24/19 11:18	1				
1,2-Dichlorobenzene	ND		0.50		ug/L	10/24/19 11:18	1				
1,3-Dichlorobenzene	ND		0.50		ug/L	10/24/19 11:18	1				
1,4-Dichlorobenzene	ND		0.50		ug/L	10/24/19 11:18	1				
Ethylene Dibromide	ND		0.50		ug/L	10/24/19 11:18	1				
Dichlorodifluoromethane	ND		0.50		ug/L	10/24/19 11:18	1				
1,1-Dichloroethane	ND		0.50		ug/L	10/24/19 11:18	1				
1,2-Dichloroethane	ND		0.50		ug/L	10/24/19 11:18	1				
1,1-Dichloroethene	ND		0.50		ug/L	10/24/19 11:18	1				
cis-1,2-Dichloroethene	ND		0.50		ug/L	10/24/19 11:18	1				
trans-1,2-Dichloroethene	ND		0.50		ug/L	10/24/19 11:18	1				
1,2-Dichloropropane	ND		0.50		ug/L	10/24/19 11:18	1				
cis-1,3-Dichloropropene	ND		0.50		ug/L	10/24/19 11:18	1				
trans-1,3-Dichloropropene	ND		0.50		ug/L	10/24/19 11:18	1				
Methylene Chloride	ND		5.0		ug/L	10/24/19 11:18	1				
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L	10/24/19 11:18	1				
Tetrachloroethene	ND		0.50		ug/L	10/24/19 11:18	1				
1,2,4-Trichlorobenzene	ND		1.0		ug/L	10/24/19 11:18	1				
1,1,1-Trichloroethane	ND		0.50		ug/L	10/24/19 11:18	1				
1,1,2-Trichloroethane	ND		0.50		ug/L	10/24/19 11:18	1				
Trichloroethene	ND		0.50		ug/L	10/24/19 11:18	1				

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-275067/4

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Trichlorofluoromethane	ND		1.0		ug/L			10/24/19 11:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/24/19 11:18	1
Vinyl chloride	ND		0.50		ug/L			10/24/19 11:18	1
Surrogate	MB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
4-Bromofluorobenzene	100		67 - 130					10/24/19 11:18	1
1,2-Dichloroethane-d4 (Sur)	104		72 - 130					10/24/19 11:18	1
Toluene-d8 (Sur)	97		70 - 130					10/24/19 11:18	1

Lab Sample ID: LCS 720-275067/5

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Dichlorobromomethane	25.0	26.5		ug/L		106	81 - 130
Bromoform	25.0	28.0		ug/L		112	75 - 127
Bromomethane	25.0	26.9		ug/L		107	70 - 132
Carbon tetrachloride	25.0	27.4		ug/L		109	72 - 142
Chlorobenzene	25.0	25.4		ug/L		102	76 - 116
Chloroethane	25.0	28.4		ug/L		114	70 - 131
Chloroform	25.0	25.6		ug/L		102	82 - 119
Chloromethane	25.0	30.9		ug/L		123	49 - 134
Chlorodibromomethane	25.0	26.3		ug/L		105	77 - 133
1,2-Dichlorobenzene	25.0	24.6		ug/L		99	77 - 117
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	76 - 116
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	76 - 116
Ethylene Dibromide	25.0	24.6		ug/L		98	80 - 121
Dichlorodifluoromethane	25.0	28.1		ug/L		112	21 - 150
1,1-Dichloroethane	25.0	27.2		ug/L		109	77 - 119
1,2-Dichloroethane	25.0	25.9		ug/L		104	73 - 122
1,1-Dichloroethene	25.0	25.8		ug/L		103	69 - 119
cis-1,2-Dichloroethene	25.0	27.1		ug/L		109	77 - 117
trans-1,2-Dichloroethene	25.0	25.4		ug/L		101	79 - 117
1,2-Dichloropropane	25.0	26.4		ug/L		106	79 - 119
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	82 - 119
trans-1,3-Dichloropropene	25.0	25.7		ug/L		103	76 - 122
Methylene Chloride	25.0	25.3		ug/L		101	75 - 117
1,1,2,2-Tetrachloroethane	25.0	27.2		ug/L		109	70 - 115
Tetrachloroethene	25.0	24.7		ug/L		99	81 - 130
1,2,4-Trichlorobenzene	25.0	25.3		ug/L		101	78 - 120
1,1,1-Trichloroethane	25.0	26.0		ug/L		104	74 - 130
1,1,2-Trichloroethane	25.0	25.4		ug/L		101	80 - 117
Trichloroethene	25.0	24.7		ug/L		99	80 - 123
Trichlorofluoromethane	25.0	27.4		ug/L		109	75 - 141
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.2		ug/L		105	70 - 133
Vinyl chloride	25.0	31.0		ug/L		124	58 - 138

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** LCS 720-275067/5

**Matrix:** Water

**Analysis Batch:** 275067

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Sur)	101		72 - 130
Toluene-d8 (Sur)	98		70 - 130

**Lab Sample ID:** LCSD 720-275067/6

**Matrix:** Water

**Analysis Batch:** 275067

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Dichlorobromomethane	25.0	26.9		ug/L		108	81 - 130	2	20
Bromoform	25.0	27.9		ug/L		112	75 - 127	0	20
Bromomethane	25.0	25.4		ug/L		102	70 - 132	6	20
Carbon tetrachloride	25.0	26.9		ug/L		107	72 - 142	2	20
Chlorobenzene	25.0	25.1		ug/L		100	76 - 116	1	20
Chloroethane	25.0	27.0		ug/L		108	70 - 131	5	20
Chloroform	25.0	25.4		ug/L		102	82 - 119	1	20
Chloromethane	25.0	28.9		ug/L		116	49 - 134	6	20
Chlorodibromomethane	25.0	26.8		ug/L		107	77 - 133	2	20
1,2-Dichlorobenzene	25.0	24.7		ug/L		99	77 - 117	0	20
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	76 - 116	1	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	76 - 116	0	20
Ethylene Dibromide	25.0	25.0		ug/L		100	80 - 121	2	20
Dichlorodifluoromethane	25.0	25.3		ug/L		101	21 - 150	10	20
1,1-Dichloroethane	25.0	26.7		ug/L		107	77 - 119	2	20
1,2-Dichloroethane	25.0	26.2		ug/L		105	73 - 122	1	20
1,1-Dichloroethene	25.0	24.8		ug/L		99	69 - 119	4	20
cis-1,2-Dichloroethene	25.0	27.0		ug/L		108	77 - 117	0	20
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	79 - 117	3	20
1,2-Dichloropropane	25.0	26.9		ug/L		108	79 - 119	2	20
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	82 - 119	2	20
trans-1,3-Dichloropropene	25.0	26.1		ug/L		104	76 - 122	2	20
Methylene Chloride	25.0	24.4		ug/L		98	75 - 117	4	20
1,1,2,2-Tetrachloroethane	25.0	27.0		ug/L		108	70 - 115	1	20
Tetrachloroethene	25.0	24.6		ug/L		98	81 - 130	1	20
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	78 - 120	1	20
1,1,1-Trichloroethane	25.0	25.6		ug/L		103	74 - 130	1	20
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	80 - 117	2	20
Trichloroethene	25.0	24.6		ug/L		98	80 - 123	1	20
Trichlorofluoromethane	25.0	25.7		ug/L		103	75 - 141	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.9		ug/L		99	70 - 133	5	20
Vinyl chloride	25.0	28.6		ug/L		114	58 - 138	8	20

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Sur)	101		72 - 130
Toluene-d8 (Sur)	99		70 - 130

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** 720-95667-17 MS

**Matrix:** Water

**Analysis Batch:** 275067

**Client Sample ID:** 22-S  
**Prep Type:** Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Dichlorobromomethane	ND		25.0	28.1		ug/L		112	60 - 140
Bromoform	ND		25.0	28.6		ug/L		114	56 - 140
Bromomethane	ND		25.0	26.3		ug/L		105	23 - 140
Carbon tetrachloride	ND		25.0	26.8		ug/L		107	60 - 140
Chlorobenzene	2.7		25.0	28.1		ug/L		101	60 - 140
Chloroethane	ND		25.0	27.7		ug/L		111	51 - 140
Chloroform	ND		25.0	26.0		ug/L		104	60 - 140
Chloromethane	ND		25.0	31.3		ug/L		125	52 - 140
Chlorodibromomethane	ND		25.0	28.3		ug/L		113	60 - 140
1,2-Dichlorobenzene	18		25.0	42.8		ug/L		99	60 - 140
1,3-Dichlorobenzene	ND		25.0	25.2		ug/L		101	60 - 140
1,4-Dichlorobenzene	0.99		25.0	25.8		ug/L		99	60 - 140
Ethylene Dibromide	ND		25.0	26.6		ug/L		106	60 - 140
Dichlorodifluoromethane	ND		25.0	26.2		ug/L		105	38 - 140
1,1-Dichloroethane	ND		25.0	27.8		ug/L		110	60 - 140
1,2-Dichloroethane	ND		25.0	27.4		ug/L		109	60 - 140
1,1-Dichloroethene	ND		25.0	24.7		ug/L		99	60 - 140
cis-1,2-Dichloroethene	36		25.0	62.7		ug/L		107	60 - 140
trans-1,2-Dichloroethene	6.6		25.0	31.2		ug/L		98	60 - 140
1,2-Dichloropropane	ND		25.0	28.3		ug/L		113	60 - 140
cis-1,3-Dichloropropene	ND		25.0	26.5		ug/L		106	60 - 140
trans-1,3-Dichloropropene	ND		25.0	27.3		ug/L		109	60 - 140
Methylene Chloride	ND		25.0	24.9		ug/L		100	40 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	28.3		ug/L		113	60 - 140
Tetrachloroethene	ND		25.0	24.3		ug/L		97	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	24.2		ug/L		97	60 - 140
1,1,1-Trichloroethane	ND		25.0	25.9		ug/L		104	60 - 140
1,1,2-Trichloroethane	ND		25.0	27.4		ug/L		110	60 - 140
Trichloroethene	4.9		25.0	29.1		ug/L		97	60 - 140
Trichlorofluoromethane	ND		25.0	26.0		ug/L		104	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.8		ug/L		99	60 - 140
Vinyl chloride	31		25.0	61.3		ug/L		122	58 - 140
<b>Surrogate</b>	<b>MS</b>	<b>MS</b>							
	<b>%Recovery</b>	<b>Qualifier</b>				<b>Limits</b>			
4-Bromofluorobenzene	102					67 - 130			
1,2-Dichloroethane-d4 (Sur)	106					72 - 130			
Toluene-d8 (Sur)	100					70 - 130			

**Lab Sample ID:** 720-95667-17 MSD

**Matrix:** Water

**Analysis Batch:** 275067

**Client Sample ID:** 22-S  
**Prep Type:** Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Dichlorobromomethane	ND		25.0	27.8		ug/L		111	60 - 140
Bromoform	ND		25.0	27.7		ug/L		111	56 - 140
Bromomethane	ND		25.0	25.7		ug/L		103	23 - 140
Carbon tetrachloride	ND		25.0	26.8		ug/L		107	60 - 140

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95667-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-95667-17 MSD

Matrix: Water

Analysis Batch: 275067

Client Sample ID: 22-S  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chlorobenzene	2.7		25.0	27.9		ug/L	101	60 - 140	1	20	
Chloroethane	ND		25.0	27.1		ug/L	108	51 - 140	2	20	
Chloroform	ND		25.0	25.8		ug/L	103	60 - 140	1	20	
Chloromethane	ND		25.0	30.1		ug/L	120	52 - 140	4	20	
Chlorodibromomethane	ND		25.0	27.5		ug/L	110	60 - 140	3	20	
1,2-Dichlorobenzene	18		25.0	42.6		ug/L	98	60 - 140	0	20	
1,3-Dichlorobenzene	ND		25.0	25.3		ug/L	101	60 - 140	0	20	
1,4-Dichlorobenzene	0.99		25.0	25.9		ug/L	100	60 - 140	0	20	
Ethylene Dibromide	ND		25.0	25.6		ug/L	102	60 - 140	4	20	
Dichlorodifluoromethane	ND		25.0	25.7		ug/L	103	38 - 140	2	20	
1,1-Dichloroethane	ND		25.0	27.6		ug/L	109	60 - 140	0	20	
1,2-Dichloroethane	ND		25.0	26.9		ug/L	108	60 - 140	2	20	
1,1-Dichloroethene	ND		25.0	24.8		ug/L	99	60 - 140	0	20	
cis-1,2-Dichloroethene	36		25.0	61.5		ug/L	102	60 - 140	2	20	
trans-1,2-Dichloroethene	6.6		25.0	30.9		ug/L	97	60 - 140	1	20	
1,2-Dichloropropane	ND		25.0	28.0		ug/L	112	60 - 140	1	20	
cis-1,3-Dichloropropene	ND		25.0	26.3		ug/L	105	60 - 140	1	20	
trans-1,3-Dichloropropene	ND		25.0	26.5		ug/L	106	60 - 140	3	20	
Methylene Chloride	ND		25.0	24.6		ug/L	98	40 - 140	1	20	
1,1,2,2-Tetrachloroethane	ND		25.0	27.9		ug/L	111	60 - 140	2	20	
Tetrachloroethene	ND		25.0	24.1		ug/L	97	60 - 140	1	20	
1,2,4-Trichlorobenzene	ND		25.0	24.2		ug/L	97	60 - 140	0	20	
1,1,1-Trichloroethane	ND		25.0	25.8		ug/L	103	60 - 140	0	20	
1,1,2-Trichloroethane	ND		25.0	26.5		ug/L	106	60 - 140	3	20	
Trichloroethene	4.9		25.0	29.1		ug/L	97	60 - 140	0	20	
Trichlorofluoromethane	ND		25.0	25.7		ug/L	103	60 - 140	1	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.0		ug/L	96	60 - 140	3	20	
Vinyl chloride	31		25.0	58.9		ug/L	112	58 - 140	4	20	
<b>Surrogate</b>		<b>MSD</b>	<b>MSD</b>								
		<b>%Recovery</b>	<b>Qualifier</b>			<b>Limits</b>					
4-Bromofluorobenzene		101		67 - 130							
1,2-Dichloroethane-d4 (Sur)		105		72 - 130							
Toluene-d8 (Sur)		99		70 - 130							

Lab Sample ID: MB 720-275069/4

Matrix: Water

Analysis Batch: 275069

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 10:46	1
Bromoform	ND		1.0		ug/L			10/24/19 10:46	1
Bromomethane	ND		1.0		ug/L			10/24/19 10:46	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 10:46	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 10:46	1
Chloroethane	ND		1.0		ug/L			10/24/19 10:46	1
Chloroform	ND		1.0		ug/L			10/24/19 10:46	1
Chloromethane	ND		1.0		ug/L			10/24/19 10:46	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 10:46	1

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-275069/4

Matrix: Water

Analysis Batch: 275069

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene			ND		0.50		ug/L			10/24/19 10:46	1
1,3-Dichlorobenzene			ND		0.50		ug/L			10/24/19 10:46	1
1,4-Dichlorobenzene			ND		0.50		ug/L			10/24/19 10:46	1
Ethylene Dibromide			ND		0.50		ug/L			10/24/19 10:46	1
Dichlorodifluoromethane			ND		0.50		ug/L			10/24/19 10:46	1
1,1-Dichloroethane			ND		0.50		ug/L			10/24/19 10:46	1
1,2-Dichloroethane			ND		0.50		ug/L			10/24/19 10:46	1
1,1-Dichloroethene			ND		0.50		ug/L			10/24/19 10:46	1
cis-1,2-Dichloroethene			ND		0.50		ug/L			10/24/19 10:46	1
trans-1,2-Dichloroethene			ND		0.50		ug/L			10/24/19 10:46	1
1,2-Dichloropropane			ND		0.50		ug/L			10/24/19 10:46	1
cis-1,3-Dichloropropene			ND		0.50		ug/L			10/24/19 10:46	1
trans-1,3-Dichloropropene			ND		0.50		ug/L			10/24/19 10:46	1
Methylene Chloride			ND		5.0		ug/L			10/24/19 10:46	1
1,1,2,2-Tetrachloroethane			ND		0.50		ug/L			10/24/19 10:46	1
Tetrachloroethene			ND		0.50		ug/L			10/24/19 10:46	1
1,2,4-Trichlorobenzene			ND		1.0		ug/L			10/24/19 10:46	1
1,1,1-Trichloroethane			ND		0.50		ug/L			10/24/19 10:46	1
1,1,2-Trichloroethane			ND		0.50		ug/L			10/24/19 10:46	1
Trichloroethene			ND		0.50		ug/L			10/24/19 10:46	1
Trichlorofluoromethane			ND		1.0		ug/L			10/24/19 10:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane			ND		0.50		ug/L			10/24/19 10:46	1
Vinyl chloride			ND		0.50		ug/L			10/24/19 10:46	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene			99		67 - 130			1
1,2-Dichloroethane-d4 (Sur)			94		72 - 130			1
Toluene-d8 (Sur)			97		70 - 130			1

Lab Sample ID: LCS 720-275069/5

Matrix: Water

Analysis Batch: 275069

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorobromomethane	25.0	25.1		ug/L		100	81 - 130
Bromoform	25.0	24.7		ug/L		99	75 - 127
Bromomethane	25.0	26.4		ug/L		105	70 - 132
Carbon tetrachloride	25.0	23.8		ug/L		95	72 - 142
Chlorobenzene	25.0	24.5		ug/L		98	76 - 116
Chloroethane	25.0	27.2		ug/L		109	70 - 131
Chloroform	25.0	24.5		ug/L		98	82 - 119
Chloromethane	25.0	27.5		ug/L		110	49 - 134
Chlorodibromomethane	25.0	25.2		ug/L		101	77 - 133
1,2-Dichlorobenzene	25.0	24.4		ug/L		97	77 - 117
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	76 - 116
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	76 - 116
Ethylene Dibromide	25.0	25.4		ug/L		102	80 - 121
Dichlorodifluoromethane	25.0	27.3		ug/L		109	21 - 150

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95667-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 720-275069/5**

**Matrix: Water**

**Analysis Batch: 275069**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	25.1		ug/L	100	77 - 119	
1,2-Dichloroethane	25.0	23.3		ug/L	93	73 - 122	
1,1-Dichloroethene	25.0	25.0		ug/L	100	69 - 119	
cis-1,2-Dichloroethene	25.0	24.8		ug/L	99	77 - 117	
trans-1,2-Dichloroethene	25.0	24.4		ug/L	98	79 - 117	
1,2-Dichloropropane	25.0	25.8		ug/L	103	79 - 119	
cis-1,3-Dichloropropene	25.0	25.7		ug/L	103	82 - 119	
trans-1,3-Dichloropropene	25.0	26.3		ug/L	105	76 - 122	
Methylene Chloride	25.0	22.9		ug/L	92	75 - 117	
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L	102	70 - 115	
Tetrachloroethene	25.0	24.6		ug/L	98	81 - 130	
1,2,4-Trichlorobenzene	25.0	25.0		ug/L	100	78 - 120	
1,1,1-Trichloroethane	25.0	23.9		ug/L	96	74 - 130	
1,1,2-Trichloroethane	25.0	25.7		ug/L	103	80 - 117	
Trichloroethene	25.0	24.6		ug/L	98	80 - 123	
Trichlorofluoromethane	25.0	24.2		ug/L	97	75 - 141	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.0		ug/L	100	70 - 133	
Vinyl chloride	25.0	27.6		ug/L	110	58 - 138	
<hr/>							
Surrogate		LCS %Recovery	LCS Qualifier	Limits			
4-Bromofluorobenzene		101		67 - 130			
1,2-Dichloroethane-d4 (Surr)		93		72 - 130			
Toluene-d8 (Surr)		97		70 - 130			

**Lab Sample ID: LCSD 720-275069/6**

**Matrix: Water**

**Analysis Batch: 275069**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	25.0	24.9		ug/L	100	81 - 130		1	20
Bromoform	25.0	25.3		ug/L	101	75 - 127		2	20
Bromomethane	25.0	25.9		ug/L	104	70 - 132		2	20
Carbon tetrachloride	25.0	24.1		ug/L	96	72 - 142		1	20
Chlorobenzene	25.0	24.7		ug/L	99	76 - 116		1	20
Chloroethane	25.0	26.9		ug/L	108	70 - 131		1	20
Chloroform	25.0	24.8		ug/L	99	82 - 119		1	20
Chloromethane	25.0	28.1		ug/L	112	49 - 134		2	20
Chlorodibromomethane	25.0	25.9		ug/L	104	77 - 133		3	20
1,2-Dichlorobenzene	25.0	25.0		ug/L	100	77 - 117		3	20
1,3-Dichlorobenzene	25.0	24.8		ug/L	99	76 - 116		1	20
1,4-Dichlorobenzene	25.0	24.3		ug/L	97	76 - 116		1	20
Ethylene Dibromide	25.0	25.8		ug/L	103	80 - 121		2	20
Dichlorodifluoromethane	25.0	27.8		ug/L	111	21 - 150		2	20
1,1-Dichloroethane	25.0	25.2		ug/L	101	77 - 119		1	20
1,2-Dichloroethane	25.0	23.5		ug/L	94	73 - 122		1	20
1,1-Dichloroethene	25.0	25.2		ug/L	101	69 - 119		1	20
cis-1,2-Dichloroethene	25.0	24.7		ug/L	99	77 - 117		1	20
trans-1,2-Dichloroethene	25.0	24.1		ug/L	96	79 - 117		1	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95667-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-275069/6

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 275069

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
1,2-Dichloropropane	25.0	26.0		ug/L		104	79 - 119	1	20
cis-1,3-Dichloropropene	25.0	25.7		ug/L		103	82 - 119	0	20
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	76 - 122	1	20
Methylene Chloride	25.0	22.8		ug/L		91	75 - 117	0	20
1,1,2,2-Tetrachloroethane	25.0	26.6		ug/L		107	70 - 115	4	20
Tetrachloroethene	25.0	24.1		ug/L		96	81 - 130	2	20
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		100	78 - 120	0	20
1,1,1-Trichloroethane	25.0	24.0		ug/L		96	74 - 130	0	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		103	80 - 117	1	20
Trichloroethene	25.0	24.4		ug/L		98	80 - 123	1	20
Trichlorofluoromethane	25.0	23.5		ug/L		94	75 - 141	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.9		ug/L		100	70 - 133	0	20
Vinyl chloride	25.0	27.7		ug/L		111	58 - 138	0	20
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>					
4-Bromofluorobenzene	100			67 - 130					
1,2-Dichloroethane-d4 (Surr)	93			72 - 130					
Toluene-d8 (Surr)	97			70 - 130					

Lab Sample ID: MB 720-275070/4

Client Sample ID: Method Blank  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 275070

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 14:10	1
Bromoform	ND		1.0		ug/L			10/24/19 14:10	1
Bromomethane	ND		1.0		ug/L			10/24/19 14:10	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 14:10	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 14:10	1
Chloroethane	ND		1.0		ug/L			10/24/19 14:10	1
Chloroform	ND		1.0		ug/L			10/24/19 14:10	1
Chloromethane	ND		1.0		ug/L			10/24/19 14:10	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 14:10	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 14:10	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 14:10	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 14:10	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 14:10	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 14:10	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 14:10	1
1,2-Dichloroethane	ND		0.50		ug/L			10/24/19 14:10	1
1,1-Dichloroethene	ND		0.50		ug/L			10/24/19 14:10	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 14:10	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/24/19 14:10	1
1,2-Dichloropropane	ND		0.50		ug/L			10/24/19 14:10	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 14:10	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/24/19 14:10	1
Methylene Chloride	ND		5.0		ug/L			10/24/19 14:10	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/24/19 14:10	1

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-275070/4

Matrix: Water

Analysis Batch: 275070

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene			ND		0.50		ug/L			10/24/19 14:10	1
1,2,4-Trichlorobenzene			ND		1.0		ug/L			10/24/19 14:10	1
1,1,1-Trichloroethane			ND		0.50		ug/L			10/24/19 14:10	1
1,1,2-Trichloroethane			ND		0.50		ug/L			10/24/19 14:10	1
Trichloroethene			ND		0.50		ug/L			10/24/19 14:10	1
Trichlorofluoromethane			ND		1.0		ug/L			10/24/19 14:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane			ND		0.50		ug/L			10/24/19 14:10	1
Vinyl chloride			ND		0.50		ug/L			10/24/19 14:10	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene			97		67 - 130					10/24/19 14:10	1
1,2-Dichloroethane-d4 (Surr)			103		72 - 130					10/24/19 14:10	1
Toluene-d8 (Surr)			100		70 - 130					10/24/19 14:10	1

Lab Sample ID: LCS 720-275070/5

Matrix: Water

Analysis Batch: 275070

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LC S	LC S	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Dichlorobromomethane	25.0	25.5		ug/L		102	81 - 130
Bromoform	25.0	24.7		ug/L		99	75 - 127
Bromomethane	25.0	25.3		ug/L		101	70 - 132
Carbon tetrachloride	25.0	25.5		ug/L		102	72 - 142
Chlorobenzene	25.0	24.5		ug/L		98	76 - 116
Chloroethane	25.0	24.7		ug/L		99	70 - 131
Chloroform	25.0	25.1		ug/L		100	82 - 119
Chloromethane	25.0	25.5		ug/L		102	49 - 134
Chlorodibromomethane	25.0	26.2		ug/L		105	77 - 133
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	77 - 117
1,3-Dichlorobenzene	25.0	24.3		ug/L		97	76 - 116
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	76 - 116
Ethylene Dibromide	25.0	25.3		ug/L		101	80 - 121
Dichlorodifluoromethane	25.0	26.6		ug/L		106	21 - 150
1,1-Dichloroethane	25.0	25.0		ug/L		100	77 - 119
1,2-Dichloroethane	25.0	24.9		ug/L		99	73 - 122
1,1-Dichloroethene	25.0	24.5		ug/L		98	69 - 119
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	77 - 117
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	79 - 117
1,2-Dichloropropane	25.0	25.3		ug/L		101	79 - 119
cis-1,3-Dichloropropene	25.0	26.1		ug/L		104	82 - 119
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	76 - 122
Methylene Chloride	25.0	23.4		ug/L		94	75 - 117
1,1,2,2-Tetrachloroethane	25.0	23.3		ug/L		93	70 - 115
Tetrachloroethene	25.0	25.1		ug/L		101	81 - 130
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	78 - 120
1,1,1-Trichloroethane	25.0	25.3		ug/L		101	74 - 130
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	80 - 117
Trichloroethene	25.0	25.4		ug/L		102	80 - 123

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95667-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 720-275070/5**

**Matrix: Water**

**Analysis Batch: 275070**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				Limits
Trichlorofluoromethane	25.0	25.3		ug/L	101	75 - 141	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.5		ug/L	102	70 - 133	
Vinyl chloride	25.0	25.4		ug/L	102	58 - 138	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>				
<b>%Recovery</b>		<b>Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene	98		67 - 130				
1,2-Dichloroethane-d4 (Sur)	98		72 - 130				
Toluene-d8 (Sur)	101		70 - 130				

**Lab Sample ID: LCSD 720-275070/6**

**Matrix: Water**

**Analysis Batch: 275070**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Dichlorobromomethane	25.0	26.1		ug/L	105	81 - 130	2	20	
Bromoform	25.0	26.0		ug/L	104	75 - 127	5	20	
Bromomethane	25.0	25.4		ug/L	102	70 - 132	1	20	
Carbon tetrachloride	25.0	25.4		ug/L	101	72 - 142	1	20	
Chlorobenzene	25.0	24.6		ug/L	98	76 - 116	1	20	
Chloroethane	25.0	24.9		ug/L	100	70 - 131	1	20	
Chloroform	25.0	25.6		ug/L	103	82 - 119	2	20	
Chloromethane	25.0	26.1		ug/L	104	49 - 134	2	20	
Chlorodibromomethane	25.0	27.1		ug/L	108	77 - 133	3	20	
1,2-Dichlorobenzene	25.0	24.6		ug/L	99	77 - 117	2	20	
1,3-Dichlorobenzene	25.0	24.5		ug/L	98	76 - 116	1	20	
1,4-Dichlorobenzene	25.0	24.6		ug/L	98	76 - 116	1	20	
Ethylene Dibromide	25.0	26.4		ug/L	105	80 - 121	4	20	
Dichlorodifluoromethane	25.0	26.3		ug/L	105	21 - 150	1	20	
1,1-Dichloroethane	25.0	25.2		ug/L	101	77 - 119	1	20	
1,2-Dichloroethane	25.0	26.0		ug/L	104	73 - 122	5	20	
1,1-Dichloroethene	25.0	24.9		ug/L	100	69 - 119	2	20	
cis-1,2-Dichloroethene	25.0	25.1		ug/L	100	77 - 117	2	20	
trans-1,2-Dichloroethene	25.0	24.9		ug/L	100	79 - 117	1	20	
1,2-Dichloropropane	25.0	25.9		ug/L	104	79 - 119	2	20	
cis-1,3-Dichloropropene	25.0	26.7		ug/L	107	82 - 119	2	20	
trans-1,3-Dichloropropene	25.0	27.6		ug/L	111	76 - 122	3	20	
Methylene Chloride	25.0	23.8		ug/L	95	75 - 117	2	20	
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L	100	70 - 115	6	20	
Tetrachloroethene	25.0	24.9		ug/L	100	81 - 130	1	20	
1,2,4-Trichlorobenzene	25.0	25.3		ug/L	101	78 - 120	1	20	
1,1,1-Trichloroethane	25.0	25.3		ug/L	101	74 - 130	0	20	
1,1,2-Trichloroethane	25.0	25.7		ug/L	103	80 - 117	3	20	
Trichloroethene	25.0	25.4		ug/L	102	80 - 123	0	20	
Trichlorofluoromethane	25.0	24.9		ug/L	100	75 - 141	1	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.2		ug/L	101	70 - 133	1	20	
Vinyl chloride	25.0	25.4		ug/L	101	58 - 138	0	20	

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-275070/6

Matrix: Water

Analysis Batch: 275070

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surrogate)	100		72 - 130
Toluene-d8 (Surrogate)	99		70 - 130

Eurofins TestAmerica, Pleasanton

# QC Association Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## GC/MS VOA

### Analysis Batch: 275000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95667-1	35-DDD	Total/NA	Water	8260B	
720-95667-2	15-S	Total/NA	Water	8260B	
MB 720-275000/8	Method Blank	Total/NA	Water	8260B	
LCS 720-275000/10	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275000/5	Lab Control Sample Dup	Total/NA	Water	8260B	
720-95667-2 MS	15-S	Total/NA	Water	8260B	
720-95667-2 MSD	15-S	Total/NA	Water	8260B	

### Analysis Batch: 275001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95667-5	36-D	Total/NA	Water	8260B	
720-95667-6	52-D	Total/NA	Water	8260B	
720-95667-7	53-D	Total/NA	Water	8260B	
MB 720-275001/9	Method Blank	Total/NA	Water	8260B	
LCS 720-275001/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275001/5	Lab Control Sample Dup	Total/NA	Water	8260B	
720-95667-7 MS	53-D	Total/NA	Water	8260B	
720-95667-7 MSD	53-D	Total/NA	Water	8260B	

### Analysis Batch: 275057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95667-3	29-S	Total/NA	Water	8260B	
720-95667-4	29-D	Total/NA	Water	8260B	
720-95667-11	EB-1	Total/NA	Water	8260B	
MB 720-275057/4	Method Blank	Total/NA	Water	8260B	
LCS 720-275057/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275057/6	Lab Control Sample Dup	Total/NA	Water	8260B	
720-95667-3 MS	29-S	Total/NA	Water	8260B	
720-95667-3 MSD	29-S	Total/NA	Water	8260B	

### Analysis Batch: 275067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95667-8	27-D	Total/NA	Water	8260B	
720-95667-9	1-D	Total/NA	Water	8260B	
720-95667-10	36-DD	Total/NA	Water	8260B	
720-95667-12	36-S	Total/NA	Water	8260B	
720-95667-13	37-S	Total/NA	Water	8260B	
720-95667-14	28-D	Total/NA	Water	8260B	
720-95667-15	27-DD	Total/NA	Water	8260B	
720-95667-17	22-S	Total/NA	Water	8260B	
MB 720-275067/4	Method Blank	Total/NA	Water	8260B	
LCS 720-275067/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275067/6	Lab Control Sample Dup	Total/NA	Water	8260B	
720-95667-17 MS	22-S	Total/NA	Water	8260B	
720-95667-17 MSD	22-S	Total/NA	Water	8260B	

### Analysis Batch: 275069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95667-18	22-DD	Total/NA	Water	8260B	
720-95667-19	EB-2	Total/NA	Water	8260B	
720-95667-20	27-S	Total/NA	Water	8260B	

Eurofins TestAmerica, Pleasanton

# QC Association Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## GC/MS VOA (Continued)

### Analysis Batch: 275069 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95667-21	2-D	Total/NA	Water	8260B	
MB 720-275069/4	Method Blank	Total/NA	Water	8260B	
LCS 720-275069/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275069/6	Lab Control Sample Dup	Total/NA	Water	8260B	

### Analysis Batch: 275070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95667-16	28-S	Total/NA	Water	8260B	
MB 720-275070/4	Method Blank	Total/NA	Water	8260B	
LCS 720-275070/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275070/6	Lab Control Sample Dup	Total/NA	Water	8260B	

# Lab Chronicle

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 35-DDD**

Date Collected: 10/17/19 14:49

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275000	10/23/19 16:03	JRM	TAL PLS

**Client Sample ID: 15-S**

Date Collected: 10/17/19 13:40

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275000	10/23/19 16:30	JRM	TAL PLS

**Client Sample ID: 29-S**

Date Collected: 10/17/19 10:31

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275057	10/23/19 23:29	JRM	TAL PLS

**Client Sample ID: 29-D**

Date Collected: 10/17/19 11:18

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275057	10/23/19 23:56	JRM	TAL PLS

**Client Sample ID: 36-D**

Date Collected: 10/17/19 14:50

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-5**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275001	10/23/19 12:58	JRM	TAL PLS

**Client Sample ID: 52-D**

Date Collected: 10/17/19 13:08

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-6**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275001	10/23/19 13:28	JRM	TAL PLS

**Client Sample ID: 53-D**

Date Collected: 10/17/19 09:20

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-7**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275001	10/23/19 13:58	JRM	TAL PLS

Eurofins TestAmerica, Pleasanton

# Lab Chronicle

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 27-D**

Date Collected: 10/18/19 08:08

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-8**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 10:51	AJS	TAL PLS

**Client Sample ID: 1-D**

Date Collected: 10/18/19 08:13

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-9**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 12:37	AJS	TAL PLS

**Client Sample ID: 36-DD**

Date Collected: 10/18/19 12:25

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-10**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 13:04	AJS	TAL PLS

**Client Sample ID: EB-1**

Date Collected: 10/17/19 15:30

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-11**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275057	10/23/19 21:16	JRM	TAL PLS

**Client Sample ID: 36-S**

Date Collected: 10/18/19 10:08

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-12**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 13:30	AJS	TAL PLS

**Client Sample ID: 37-S**

Date Collected: 10/18/19 10:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-13**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 13:57	AJS	TAL PLS

**Client Sample ID: 28-D**

Date Collected: 10/18/19 09:11

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-14**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 14:23	AJS	TAL PLS

Eurofins TestAmerica, Pleasanton

# Lab Chronicle

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

**Client Sample ID: 27-DD**

Date Collected: 10/18/19 11:23

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-15**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 14:50	AJS	TAL PLS

**Client Sample ID: 28-S**

Date Collected: 10/18/19 09:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-16**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275070	10/24/19 13:41	JRM	TAL PLS

**Client Sample ID: 22-S**

Date Collected: 10/18/19 10:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-17**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275067	10/24/19 15:16	AJS	TAL PLS

**Client Sample ID: 22-DD**

Date Collected: 10/18/19 11:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-18**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275069	10/24/19 16:34	JRM	TAL PLS

**Client Sample ID: EB-2**

Date Collected: 10/18/19 12:45

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-19**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275069	10/24/19 17:03	JRM	TAL PLS

**Client Sample ID: 27-S**

Date Collected: 10/18/19 11:33

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-20**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	275069	10/24/19 15:36	JRM	TAL PLS

**Client Sample ID: 2-D**

Date Collected: 10/18/19 11:38

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95667-21**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	275069	10/24/19 16:05	JRM	TAL PLS

## Laboratory References:

TAL PLS = Eurofins TestAmerica, Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Eurofins TestAmerica, Pleasanton

# Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

## Laboratory: Eurofins TestAmerica, Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	2496	01-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
USDA	Federal		P330-17-00380

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	1,1,1-Trichloroethane
8260B		Water	1,1,2,2-Tetrachloroethane
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	1,1,2-Trichloroethane
8260B		Water	1,1-Dichloroethane
8260B		Water	1,1-Dichloroethene
8260B		Water	1,2,4-Trichlorobenzene
8260B		Water	1,2-Dichlorobenzene
8260B		Water	1,2-Dichloroethane
8260B		Water	1,2-Dichloropropane
8260B		Water	1,3-Dichlorobenzene
8260B		Water	1,4-Dichlorobenzene
8260B		Water	Bromoform
8260B		Water	Bromomethane
8260B		Water	Carbon tetrachloride
8260B		Water	Chlorobenzene
8260B		Water	Chlorodibromomethane
8260B		Water	Chloroethane
8260B		Water	Chloroform
8260B		Water	Chloromethane
8260B		Water	cis-1,2-Dichloroethene
8260B		Water	cis-1,3-Dichloropropene
8260B		Water	Dichlorobromomethane
8260B		Water	Dichlorodifluoromethane
8260B		Water	Ethylene Dibromide
8260B		Water	Methylene Chloride
8260B		Water	Tetrachloroethene
8260B		Water	trans-1,2-Dichloroethene
8260B		Water	trans-1,3-Dichloropropene
8260B		Water	Trichloroethene
8260B		Water	Trichlorofluoromethane
8260B		Water	Vinyl chloride

Eurofins TestAmerica, Pleasanton

# Method Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
5030B	Purge and Trap	SW846	TAL PLS

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PLS = Eurofins TestAmerica, Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Sample Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95667-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
720-95667-1	35-DDD	Water	10/17/19 14:49	10/18/19 17:15	
720-95667-2	15-S	Water	10/17/19 13:40	10/18/19 17:15	
720-95667-3	29-S	Water	10/17/19 10:31	10/18/19 17:15	
720-95667-4	29-D	Water	10/17/19 11:18	10/18/19 17:15	
720-95667-5	36-D	Water	10/17/19 14:50	10/18/19 17:15	
720-95667-6	52-D	Water	10/17/19 13:08	10/18/19 17:15	
720-95667-7	53-D	Water	10/17/19 09:20	10/18/19 17:15	
720-95667-8	27-D	Water	10/18/19 08:08	10/18/19 17:15	
720-95667-9	1-D	Water	10/18/19 08:13	10/18/19 17:15	
720-95667-10	36-DD	Water	10/18/19 12:25	10/18/19 17:15	
720-95667-11	EB-1	Water	10/17/19 15:30	10/18/19 17:15	
720-95667-12	36-S	Water	10/18/19 10:08	10/18/19 17:15	
720-95667-13	37-S	Water	10/18/19 10:45	10/18/19 17:15	
720-95667-14	28-D	Water	10/18/19 09:11	10/18/19 17:15	
720-95667-15	27-DD	Water	10/18/19 11:23	10/18/19 17:15	
720-95667-16	28-S	Water	10/18/19 09:45	10/18/19 17:15	
720-95667-17	22-S	Water	10/18/19 10:45	10/18/19 17:15	
720-95667-18	22-DD	Water	10/18/19 11:45	10/18/19 17:15	
720-95667-19	EB-2	Water	10/18/19 12:45	10/18/19 17:15	
720-95667-20	27-S	Water	10/18/19 11:33	10/18/19 17:15	
720-95667-21	2-D	Water	10/18/19 11:38	10/18/19 17:15	

Eurofins TestAmerica, Pleasanton

72095667

Chain of Custody Record for  
Haley & Aldrich, Inc. Blanket Service Agreement #2015-18-TestAmerica

10/29/78

Regulatory Program:  DW  NPDES  RCRA  Other:  
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2015-18-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc..

Client Contact		H&A Project Manager: Mike Calhoun		H&A Site Contact:		Date:	COC No:
Haley & Aldrich 1956 Webster Street, Suite 300 Oakland, CA 94612 510-879-4554 Phone 510-879-4579 FAX H&A Project Number : 127819 Site: Former 901/902 Thompson Place H&A P O # 127819-002 SID 1		Tel/Fax: 510-879-4554		Lab Contact: Dimple Sharma		Carrier:	<u>1</u> of <u>2</u> COCs
		Analysis Turnaround Time					Sampler: <u>JL</u> , <u>TS</u>
		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS					For Lab Use Only:
		TAT if different from Below					
		<input type="checkbox"/> 2 weeks					
		<input checked="" type="checkbox"/> 1 week					
		<input type="checkbox"/> 2 days					
		<input type="checkbox"/> 1 day					



720-95667 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs (modified list) - EPA 8260	Sample Specific Notes:
1. 35-DDD	10/17/19	1404	G	W	3	X			
2. 15-S		1340	G	W	3	X			
3. 29-S		1031	G	W	3	X			
4. 29-D		1118	G	W	3	X			
5. 36-D		1450	G	W	3	X			
6. 52-D		1308	G	W	3	X			
7. 53-D	↓	0920	G	W	9	Y X			
8. 27-D	10/18/19	0806	G	W	3	X			
9. 1-D		0813	G	W	3	X			
10. 36-DD	↓	1225	G	W	3	X			
11. EB-1	10/17/19	1530	G	W	3	X			
12. 36-S	10/18/19	1008	G	W	3	X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

## Possible Hazard Identification:

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

## Sample Disposal

 Return to Client  Disposal by Lab  Archive for Months

## Special Instructions/QC Requirements &amp; Comments:

PLEASE NOTE: 7-Day TAT due to reactivity to HCl Voids

PLEASE NOTE: project-specific list of VOCs (8010 list plus Freon 113 and 1,2,4-trichlorobenzene)

4.2°C ~~4.2°C~~ & 10/18/19

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____	
Relinquished by: <u>Eli</u> (BTS)	Company: BTS	Date/Time: 10/18/19 1435	Received by: <u>Eli</u> (ers sample collection) Company: BTS Date/Time: 10/18/19 1435
Relinquished by: <u>J. R. Lee</u>	Company: BTS	Date/Time: 10/18/19 1530	Received by: <u>JESSICA KEMPER</u> Company: DCS Company Date/Time: 3:00pm
Relinquished by: <u>Jessie Kilmer</u>	Company: DCS	Date/Time: 10/18/19 1715	Received in Laboratory by: <u>JESSICA KEMPER</u> Company: DCS Company Date/Time: 10/18/19 1715

Form No. CA-C-WI-045, Rev. 1.2, dated 10/14/2019



ED\_013213\_00001030-00159

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566-4756

phone 925.484.1919 fax 925.600.3002

720-95667

## Chain of Custody Record for

Haley &amp; Aldrich, Inc. Blanket Service Agreement #2015-18-TestAmerica

102078

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program:  DW  NPDES  RCRA  Other:

TestAmerica's services under this CoC shall be performed in accordance with the T&amp;Cs within Blanket Service Agreement# 2015-18-TestAmerica by and between Haley &amp; Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.

Client Contact		H&A Project Manager: Mike Calhoun			H&A Site Contact:		Date:		COC No:	
Haley & Aldrich 1956 Webster Street, Suite 300 Oakland, CA 94612 510-879-4554 Phone 510-879-4579 FAX H&A Project Number : 127819 Site: Former 901/902 Thompson Place H&A P O # 127819-002 SID 1		Tel/Fax: 510-879-4554 <b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day			Lab Contact: Dimple Sharma		Carrier:		2 of 7 COCs Sampler: TE, FS For Lab Use Only: Walk-in Client: Lab Sampling:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N) Perform MS / MSD (Y/N) VOCs (modified list) - EPA 8260	Job / SDG No.:  Sample Specific Notes:		
13.	37-S	10/12/19	1045	G	w	3	X			
14.	28-D		0911	G	w	3	X			
15.	27-DD		1123	G	w	3	X			
16.	28-S		2030	G	w	3	X	Sample time: 0945		
17.	22-S		1045	G	w	3	X			
18.	22-DD		1145	G	w	3	X			
19.	EB-2		1205	G	w	3	X			
20.	27-S		1133	G	w	3	X			
21.	2-D	↓	1138	G	w	3	X			
22.	16-S	10/17/19	0948	G	w	3	X			
23.	23-S	10/17/19	1056	G	w	3	X			
24.	DW-7	10/17/19	0841	G	w	3	X			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							1/2			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							Sample Disposal			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							<input type="checkbox"/> Return to Client	<input type="checkbox"/> Disposal by Lab	<input type="checkbox"/> Archive for Months	
Special Instructions/QC Requirements & Comments: <b>PLEASE NOTE: 7-Day TAT due to reactivity to HCl Voas</b> <b>PLEASE NOTE: project-specific list of VOCs (8010 list plus Freon 113 and 1,2,4-trichlorobenzene)</b>										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:			Corr'd:	Therm ID No.:		
Relinquished by: <i>ELI</i>		Company: BT3		Date/Time: <i>10/17/19 1435</i>	Received by: <i>ELI</i>	Company: (House customer) BT3		Date/Time: <i>10/17/19 1435</i>		
Relinquished by: <i>CREE</i>		Company: BT3		Date/Time: <i>10/18/19 1530</i>	Received by: <i>JESSICA KELHER</i>	Company: BTCS Company		Date/Time: <i>10/18/19 1530 pm</i>		
Relinquished by: <i>JESSICA Kelher Jukelher</i>		Company: BTCS Company		Date/Time: <i>10/18/19 1455</i>	Received in Laboratory by: <i>JESSICA Kelher Jukelher</i>	Company: ETHAN		Date/Time: <i>10/18/19 1700</i>		

Form No. CA-C-WI-045, Rev. 1.2, dated 10/14/2019



ED\_013213\_00001030-00160

## Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 720-95667-1

**Login Number:** 95667

**List Source:** Eurofins TestAmerica, Pleasanton

**List Number:** 1

**Creator:** Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Environment Testing  
TestAmerica

## ANALYTICAL REPORT

Eurofins TestAmerica, Pleasanton  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

Laboratory Job ID: 720-95666-1

Client Project/Site: 901/902 Thompson Place-Advanced Micro

For:  
Haley & Aldrich, Inc.  
1956 Webster Street  
Suite 300  
Oakland, California 94612

Attn: Michael Calhoun

Authorized for release by:  
10/28/2019 2:54:32 PM

Micah Smith, Project Manager II  
(925)484-1919  
[micah.smith@testamericainc.com](mailto:micah.smith@testamericainc.com)

### LINKS

Review your project  
results through

**Total Access**

Have a Question?

Ask—  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	6
Surrogate Summary . . . . .	12
QC Sample Results . . . . .	13
QC Association Summary . . . . .	19
Lab Chronicle . . . . .	20
Certification Summary . . . . .	21
Method Summary . . . . .	22
Sample Summary . . . . .	23
Chain of Custody . . . . .	24
Receipt Checklists . . . . .	25

# Definitions/Glossary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Job ID: 720-95666-1**

**Laboratory: Eurofins TestAmerica, Pleasanton**

## Narrative

**Job Narrative  
720-95666-1**

## Comments

No additional comments.

## Receipt

The samples were received on 10/18/2019 5:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

## GC/MS VOA

Method 8260B: The following volatile sample was analyzed with significant headspace in the sample container(s): 3-D (720-95666-6). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## Client Sample ID: 16-S

## Lab Sample ID: 720-95666-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	6.0		0.50		ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	6.7		0.50		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.97		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	4.1		0.50		ug/L	1		8260B	Total/NA
Vinyl chloride	27		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 23-S

## Lab Sample ID: 720-95666-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	14		0.50		ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.70		0.50		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.0		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	52		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	4.3		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	1.2		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	43		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: DW-7

## Lab Sample ID: 720-95666-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.58		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	160		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	1.9		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	39		0.50		ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	0.96		0.50		ug/L	1		8260B	Total/NA
Vinyl chloride	7.0		0.50		ug/L	1		8260B	Total/NA

## Client Sample ID: 23-D

## Lab Sample ID: 720-95666-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.1		2.5		ug/L	5		8260B	Total/NA
Trichloroethene	240		2.5		ug/L	5		8260B	Total/NA

## Client Sample ID: TB-1

## Lab Sample ID: 720-95666-5

No Detections.

## Client Sample ID: 3-D

## Lab Sample ID: 720-95666-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.1		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	290		5.0		ug/L	10		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5		0.50		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Client Sample ID: 16-S**

Date Collected: 10/17/19 09:48

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-1**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 13:24	1
Bromoform	ND		1.0		ug/L			10/23/19 13:24	1
Bromomethane	ND		1.0		ug/L			10/23/19 13:24	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 13:24	1
<b>Chlorobenzene</b>	<b>6.0</b>		0.50		ug/L			10/23/19 13:24	1
Chloroethane	ND		1.0		ug/L			10/23/19 13:24	1
Chloroform	ND		1.0		ug/L			10/23/19 13:24	1
Chloromethane	ND		1.0		ug/L			10/23/19 13:24	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 13:24	1
<b>1,2-Dichlorobenzene</b>	<b>6.7</b>		0.50		ug/L			10/23/19 13:24	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:24	1
<b>1,4-Dichlorobenzene</b>	<b>0.97</b>		0.50		ug/L			10/23/19 13:24	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 13:24	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 13:24	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 13:24	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 13:24	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 13:24	1
<b>cis-1,2-Dichloroethene</b>	<b>4.1</b>		0.50		ug/L			10/23/19 13:24	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 13:24	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 13:24	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 13:24	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 13:24	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 13:24	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 13:24	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 13:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 13:24	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 13:24	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 13:24	1
Trichloroethene	ND		0.50		ug/L			10/23/19 13:24	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 13:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 13:24	1
Vinyl chloride	27		0.50		ug/L			10/23/19 13:24	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromo fluorobenzene	101		67 - 130				10/23/19 13:24	1	
1,2-Dichloroethane-d4 (Sur)	104		72 - 130				10/23/19 13:24	1	
Toluene-d8 (Sur)	96		70 - 130				10/23/19 13:24	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Client Sample ID: 23-S**

Date Collected: 10/17/19 10:56

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-2**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 13:50	1
Bromoform	ND		1.0		ug/L			10/23/19 13:50	1
Bromomethane	ND		1.0		ug/L			10/23/19 13:50	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 13:50	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 13:50	1
Chloroethane	ND		1.0		ug/L			10/23/19 13:50	1
Chloroform	ND		1.0		ug/L			10/23/19 13:50	1
Chloromethane	ND		1.0		ug/L			10/23/19 13:50	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 13:50	1
<b>1,2-Dichlorobenzene</b>	<b>14</b>		0.50		ug/L			10/23/19 13:50	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 13:50	1
<b>1,4-Dichlorobenzene</b>	<b>0.70</b>		0.50		ug/L			10/23/19 13:50	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 13:50	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 13:50	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 13:50	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 13:50	1
<b>1,1-Dichloroethene</b>	<b>1.0</b>		0.50		ug/L			10/23/19 13:50	1
<b>cis-1,2-Dichloroethene</b>	<b>52</b>		0.50		ug/L			10/23/19 13:50	1
<b>trans-1,2-Dichloroethene</b>	<b>4.3</b>		0.50		ug/L			10/23/19 13:50	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 13:50	1
<b>cis-1,3-Dichloropropene</b>	<b>ND</b>		0.50		ug/L			10/23/19 13:50	1
<b>trans-1,3-Dichloropropene</b>	<b>ND</b>		0.50		ug/L			10/23/19 13:50	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 13:50	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 13:50	1
<b>Tetrachloroethene</b>	<b>1.2</b>		0.50		ug/L			10/23/19 13:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 13:50	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 13:50	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 13:50	1
<b>Trichloroethene</b>	<b>43</b>		0.50		ug/L			10/23/19 13:50	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 13:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 13:50	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 13:50	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromo- <i>o</i> -nitrobenzene	99		67 - 130				10/23/19 13:50	1	
1,2-Dichloroethane-d4 ( <i>Sur</i> )	102		72 - 130				10/23/19 13:50	1	
Toluene-d8 ( <i>Sur</i> )	97		70 - 130				10/23/19 13:50	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Client Sample ID: DW-7**

Date Collected: 10/17/19 08:41

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-3**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 14:16	1
Bromoform	ND		1.0		ug/L			10/23/19 14:16	1
Bromomethane	ND		1.0		ug/L			10/23/19 14:16	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 14:16	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 14:16	1
Chloroethane	ND		1.0		ug/L			10/23/19 14:16	1
Chloroform	ND		1.0		ug/L			10/23/19 14:16	1
Chloromethane	ND		1.0		ug/L			10/23/19 14:16	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 14:16	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 14:16	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 14:16	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 14:16	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 14:16	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 14:16	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 14:16	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 14:16	1
1,1-Dichloroethene	0.58		0.50		ug/L			10/23/19 14:16	1
cis-1,2-Dichloroethene	160		0.50		ug/L			10/23/19 14:16	1
trans-1,2-Dichloroethene	1.9		0.50		ug/L			10/23/19 14:16	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 14:16	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 14:16	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 14:16	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 14:16	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 14:16	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 14:16	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 14:16	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 14:16	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 14:16	1
Trichloroethene	39		0.50		ug/L			10/23/19 14:16	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 14:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.96		0.50		ug/L			10/23/19 14:16	1
Vinyl chloride	7.0		0.50		ug/L			10/23/19 14:16	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene	101		67 - 130				10/23/19 14:16	1	
1,2-Dichloroethane-d4 (Sur)	103		72 - 130				10/23/19 14:16	1	
Toluene-d8 (Sur)	97		70 - 130				10/23/19 14:16	1	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Client Sample ID: 23-D**

Date Collected: 10/17/19 12:01

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-4**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		2.5		ug/L			10/23/19 14:43	5
Bromoform	ND		5.0		ug/L			10/23/19 14:43	5
Bromomethane	ND		5.0		ug/L			10/23/19 14:43	5
Carbon tetrachloride	ND		2.5		ug/L			10/23/19 14:43	5
Chlorobenzene	ND		2.5		ug/L			10/23/19 14:43	5
Chloroethane	ND		5.0		ug/L			10/23/19 14:43	5
Chloroform	ND		5.0		ug/L			10/23/19 14:43	5
Chloromethane	ND		5.0		ug/L			10/23/19 14:43	5
Chlorodibromomethane	ND		2.5		ug/L			10/23/19 14:43	5
1,2-Dichlorobenzene	ND		2.5		ug/L			10/23/19 14:43	5
1,3-Dichlorobenzene	ND		2.5		ug/L			10/23/19 14:43	5
1,4-Dichlorobenzene	ND		2.5		ug/L			10/23/19 14:43	5
Ethylene Dibromide	ND		2.5		ug/L			10/23/19 14:43	5
Dichlorodifluoromethane	ND		2.5		ug/L			10/23/19 14:43	5
1,1-Dichloroethane	ND		2.5		ug/L			10/23/19 14:43	5
1,2-Dichloroethane	ND		2.5		ug/L			10/23/19 14:43	5
1,1-Dichloroethene	ND		2.5		ug/L			10/23/19 14:43	5
cis-1,2-Dichloroethene	4.1		2.5		ug/L			10/23/19 14:43	5
trans-1,2-Dichloroethene	ND		2.5		ug/L			10/23/19 14:43	5
1,2-Dichloropropane	ND		2.5		ug/L			10/23/19 14:43	5
cis-1,3-Dichloropropene	ND		2.5		ug/L			10/23/19 14:43	5
trans-1,3-Dichloropropene	ND		2.5		ug/L			10/23/19 14:43	5
Methylene Chloride	ND		25		ug/L			10/23/19 14:43	5
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			10/23/19 14:43	5
Tetrachloroethene	ND		2.5		ug/L			10/23/19 14:43	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/23/19 14:43	5
1,1,1-Trichloroethane	ND		2.5		ug/L			10/23/19 14:43	5
1,1,2-Trichloroethane	ND		2.5		ug/L			10/23/19 14:43	5
Trichloroethene	240		2.5		ug/L			10/23/19 14:43	5
Trichlorofluoromethane	ND		5.0		ug/L			10/23/19 14:43	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5		ug/L			10/23/19 14:43	5
Vinyl chloride	ND		2.5		ug/L			10/23/19 14:43	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene	100		67 - 130				10/23/19 14:43	5	
1,2-Dichloroethane-d4 (Sur)	104		72 - 130				10/23/19 14:43	5	
Toluene-d8 (Sur)	96		70 - 130				10/23/19 14:43	5	

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Client Sample ID: TB-1**

Date Collected: 10/17/19 07:15

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-5**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 15:09	1
Bromoform	ND		1.0		ug/L			10/23/19 15:09	1
Bromomethane	ND		1.0		ug/L			10/23/19 15:09	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 15:09	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 15:09	1
Chloroethane	ND		1.0		ug/L			10/23/19 15:09	1
Chloroform	ND		1.0		ug/L			10/23/19 15:09	1
Chloromethane	ND		1.0		ug/L			10/23/19 15:09	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 15:09	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 15:09	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 15:09	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 15:09	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 15:09	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 15:09	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 15:09	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 15:09	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 15:09	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 15:09	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 15:09	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 15:09	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 15:09	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 15:09	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 15:09	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 15:09	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 15:09	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 15:09	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 15:09	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 15:09	1
Trichloroethene	ND		0.50		ug/L			10/23/19 15:09	1
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 15:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			10/23/19 15:09	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 15:09	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromo fluorobenzene	100		67 - 130					10/23/19 15:09	1
1,2-Dichloroethane-d4 (Sur)	105		72 - 130					10/23/19 15:09	1
Toluene-d8 (Sur)	98		70 - 130					10/23/19 15:09	1

Eurofins TestAmerica, Pleasanton

# Client Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Client Sample ID: 3-D**

Date Collected: 10/17/19 12:06

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-6**

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/23/19 15:36	1
Bromoform	ND		1.0		ug/L			10/23/19 15:36	1
Bromomethane	ND		1.0		ug/L			10/23/19 15:36	1
Carbon tetrachloride	ND		0.50		ug/L			10/23/19 15:36	1
Chlorobenzene	ND		0.50		ug/L			10/23/19 15:36	1
Chloroethane	ND		1.0		ug/L			10/23/19 15:36	1
Chloroform	ND		1.0		ug/L			10/23/19 15:36	1
Chloromethane	ND		1.0		ug/L			10/23/19 15:36	1
Chlorodibromomethane	ND		0.50		ug/L			10/23/19 15:36	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/23/19 15:36	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/23/19 15:36	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/23/19 15:36	1
Ethylene Dibromide	ND		0.50		ug/L			10/23/19 15:36	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/23/19 15:36	1
1,1-Dichloroethane	ND		0.50		ug/L			10/23/19 15:36	1
1,2-Dichloroethane	ND		0.50		ug/L			10/23/19 15:36	1
1,1-Dichloroethene	ND		0.50		ug/L			10/23/19 15:36	1
cis-1,2-Dichloroethene	4.1		0.50		ug/L			10/23/19 15:36	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/23/19 15:36	1
1,2-Dichloropropane	ND		0.50		ug/L			10/23/19 15:36	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 15:36	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/23/19 15:36	1
Methylene Chloride	ND		5.0		ug/L			10/23/19 15:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/23/19 15:36	1
Tetrachloroethene	ND		0.50		ug/L			10/23/19 15:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/23/19 15:36	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/23/19 15:36	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/23/19 15:36	1
Trichloroethene	290		5.0		ug/L			10/24/19 12:11	10
Trichlorofluoromethane	ND		1.0		ug/L			10/23/19 15:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5		0.50		ug/L			10/23/19 15:36	1
Vinyl chloride	ND		0.50		ug/L			10/23/19 15:36	1
<b>Surrogate</b>		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100			67 - 130				10/23/19 15:36	1
4-Bromofluorobenzene	101			67 - 130				10/24/19 12:11	10
1,2-Dichloroethane-d4 (Sur)	107			72 - 130				10/23/19 15:36	1
1,2-Dichloroethane-d4 (Sur)	105			72 - 130				10/24/19 12:11	10
Toluene-d8 (Sur)	94			70 - 130				10/23/19 15:36	1
Toluene-d8 (Sur)	98			70 - 130				10/24/19 12:11	10

Eurofins TestAmerica, Pleasanton

# Surrogate Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (67-130)	DCA (72-130)	TOL (70-130)
720-95666-1	16-S	101	104	96
720-95666-2	23-S	99	102	97
720-95666-3	DW-7	101	103	97
720-95666-4	23-D	100	104	96
720-95666-5	TB-1	100	105	98
720-95666-6	3-D	100	107	94
720-95666-6	3-D	101	105	98
LCS 720-275000/10	Lab Control Sample	102	102	100
LCS 720-275067/5	Lab Control Sample	100	101	98
LCSD 720-275000/5	Lab Control Sample Dup	101	100	99
LCSD 720-275067/6	Lab Control Sample Dup	99	101	99
MB 720-275000/8	Method Blank	102	108	98
MB 720-275067/4	Method Blank	100	104	97

### Surrogate Legend

BFB = 4-Bromofluorobenzene

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID:** MB 720-275000/8

**Matrix:** Water

**Analysis Batch:** 275000

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Dichlorobromomethane	ND				0.50		ug/L			10/23/19 12:04	1
Bromoform	ND				1.0		ug/L			10/23/19 12:04	1
Bromomethane	ND				1.0		ug/L			10/23/19 12:04	1
Carbon tetrachloride	ND				0.50		ug/L			10/23/19 12:04	1
Chlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
Chloroethane	ND				1.0		ug/L			10/23/19 12:04	1
Chloroform	ND				1.0		ug/L			10/23/19 12:04	1
Chloromethane	ND				1.0		ug/L			10/23/19 12:04	1
Chlorodibromomethane	ND				0.50		ug/L			10/23/19 12:04	1
1,2-Dichlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
1,3-Dichlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
1,4-Dichlorobenzene	ND				0.50		ug/L			10/23/19 12:04	1
Ethylene Dibromide	ND				0.50		ug/L			10/23/19 12:04	1
Dichlorodifluoromethane	ND				0.50		ug/L			10/23/19 12:04	1
1,1-Dichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
1,2-Dichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
1,1-Dichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
cis-1,2-Dichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
trans-1,2-Dichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
1,2-Dichloropropane	ND				0.50		ug/L			10/23/19 12:04	1
cis-1,3-Dichloropropene	ND				0.50		ug/L			10/23/19 12:04	1
trans-1,3-Dichloropropene	ND				0.50		ug/L			10/23/19 12:04	1
Methylene Chloride	ND				5.0		ug/L			10/23/19 12:04	1
1,1,2,2-Tetrachloroethane	ND				0.50		ug/L			10/23/19 12:04	1
Tetrachloroethene	ND				0.50		ug/L			10/23/19 12:04	1
1,2,4-Trichlorobenzene	ND				1.0		ug/L			10/23/19 12:04	1
1,1,1-Trichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
1,1,2-Trichloroethane	ND				0.50		ug/L			10/23/19 12:04	1
Trichloroethene	ND				0.50		ug/L			10/23/19 12:04	1
Trichlorofluoromethane	ND				1.0		ug/L			10/23/19 12:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				0.50		ug/L			10/23/19 12:04	1
Vinyl chloride	ND				0.50		ug/L			10/23/19 12:04	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
	Result	Qualifier									
4-Bromofluorobenzene	102				67 - 130					10/23/19 12:04	1
1,2-Dichloroethane-d4 (Sur)	108				72 - 130					10/23/19 12:04	1
Toluene-d8 (Sur)	98				70 - 130					10/23/19 12:04	1

**Lab Sample ID:** LCS 720-275000/10

**Matrix:** Water

**Analysis Batch:** 275000

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Dichlorobromomethane	25.0	27.6		ug/L		110	81 - 130	
Bromoform	25.0	28.2		ug/L		113	75 - 127	
Bromomethane	25.0	25.3		ug/L		101	70 - 132	
Carbon tetrachloride	25.0	26.9		ug/L		108	72 - 142	
Chlorobenzene	25.0	25.4		ug/L		102	76 - 116	

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95666-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** LCS 720-275000/10

**Client Sample ID:** Lab Control Sample

**Matrix:** Water

**Prep Type:** Total/NA

**Analysis Batch:** 275000

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				Limits
Chloroethane	25.0	26.4		ug/L		106	70 - 131
Chloroform	25.0	25.3		ug/L		101	82 - 119
Chloromethane	25.0	26.7		ug/L		107	49 - 134
Chlorodibromomethane	25.0	27.5		ug/L		110	77 - 133
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	77 - 117
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	76 - 116
1,4-Dichlorobenzene	25.0	25.3		ug/L		101	76 - 116
Ethylene Dibromide	25.0	25.1		ug/L		100	80 - 121
Dichlorodifluoromethane	25.0	23.9		ug/L		96	21 - 150
1,1-Dichloroethane	25.0	26.2		ug/L		105	77 - 119
1,2-Dichloroethane	25.0	26.0		ug/L		104	73 - 122
1,1-Dichloroethene	25.0	25.5		ug/L		102	69 - 119
cis-1,2-Dichloroethene	25.0	27.2		ug/L		109	77 - 117
trans-1,2-Dichloroethene	25.0	25.2		ug/L		101	79 - 117
1,2-Dichloropropane	25.0	26.9		ug/L		108	79 - 119
cis-1,3-Dichloropropene	25.0	26.1		ug/L		104	82 - 119
trans-1,3-Dichloropropene	25.0	24.9		ug/L		99	76 - 122
Methylene Chloride	25.0	24.9		ug/L		100	75 - 117
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	70 - 115
Tetrachloroethene	25.0	25.0		ug/L		100	81 - 130
1,2,4-Trichlorobenzene	25.0	26.1		ug/L		104	78 - 120
1,1,1-Trichloroethane	25.0	25.9		ug/L		104	74 - 130
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	80 - 117
Trichloroethene	25.0	24.5		ug/L		98	80 - 123
Trichlorofluoromethane	25.0	26.4		ug/L		106	75 - 141
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.0		ug/L		100	70 - 133
Vinyl chloride	25.0	27.8		ug/L		111	58 - 138
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>				
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			
4-Bromofluorobenzene		102		67 - 130			
1,2-Dichloroethane-d4 (Sur)		102		72 - 130			
Toluene-d8 (Sur)		100		70 - 130			

**Lab Sample ID:** LCSD 720-275000/5

**Client Sample ID:** Lab Control Sample Dup

**Matrix:** Water

**Prep Type:** Total/NA

**Analysis Batch:** 275000

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Dichlorobromomethane	25.0	26.9		ug/L		108	81 - 130	3	20
Bromoform	25.0	27.5		ug/L		110	75 - 127	2	20
Bromomethane	25.0	25.1		ug/L		100	70 - 132	1	20
Carbon tetrachloride	25.0	26.7		ug/L		107	72 - 142	1	20
Chlorobenzene	25.0	25.2		ug/L		101	76 - 116	1	20
Chloroethane	25.0	25.9		ug/L		104	70 - 131	2	20
Chloroform	25.0	24.9		ug/L		100	82 - 119	1	20
Chloromethane	25.0	26.2		ug/L		105	49 - 134	2	20
Chlorodibromomethane	25.0	26.4		ug/L		106	77 - 133	4	20
1,2-Dichlorobenzene	25.0	23.6		ug/L		94	77 - 117	0	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95666-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-275000/5

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 275000

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
1,3-Dichlorobenzene	25.0	24.7		ug/L	99	76 - 116	1	20	
1,4-Dichlorobenzene	25.0	24.9		ug/L	100	76 - 116	2	20	
Ethylene Dibromide	25.0	24.3		ug/L	97	80 - 121	3	20	
Dichlorodifluoromethane	25.0	23.5		ug/L	94	21 - 150	2	20	
1,1-Dichloroethane	25.0	26.0		ug/L	104	77 - 119	1	20	
1,2-Dichloroethane	25.0	25.2		ug/L	101	73 - 122	3	20	
1,1-Dichloroethene	25.0	25.5		ug/L	102	69 - 119	0	20	
cis-1,2-Dichloroethene	25.0	26.8		ug/L	107	77 - 117	2	20	
trans-1,2-Dichloroethene	25.0	24.9		ug/L	100	79 - 117	1	20	
1,2-Dichloropropane	25.0	26.1		ug/L	104	79 - 119	3	20	
cis-1,3-Dichloropropene	25.0	25.3		ug/L	101	82 - 119	3	20	
trans-1,3-Dichloropropene	25.0	24.2		ug/L	97	76 - 122	3	20	
Methylene Chloride	25.0	24.6		ug/L	99	75 - 117	1	20	
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L	102	70 - 115	2	20	
Tetrachloroethene	25.0	24.9		ug/L	99	81 - 130	1	20	
1,2,4-Trichlorobenzene	25.0	25.8		ug/L	103	78 - 120	1	20	
1,1,1-Trichloroethane	25.0	25.6		ug/L	102	74 - 130	1	20	
1,1,2-Trichloroethane	25.0	25.1		ug/L	100	80 - 117	3	20	
Trichloroethene	25.0	24.4		ug/L	98	80 - 123	0	20	
Trichlorofluoromethane	25.0	26.1		ug/L	104	75 - 141	1	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.5		ug/L	98	70 - 133	2	20	
Vinyl chloride	25.0	27.4		ug/L	110	58 - 138	1	20	
<hr/>									
Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits						
4-Bromofluorobenzene	101		67 - 130						
1,2-Dichloroethane-d4 (Sur)	100		72 - 130						
Toluene-d8 (Sur)	99		70 - 130						

Lab Sample ID: MB 720-275067/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 275067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/24/19 11:18	1
Bromoform	ND		1.0		ug/L			10/24/19 11:18	1
Bromomethane	ND		1.0		ug/L			10/24/19 11:18	1
Carbon tetrachloride	ND		0.50		ug/L			10/24/19 11:18	1
Chlorobenzene	ND		0.50		ug/L			10/24/19 11:18	1
Chloroethane	ND		1.0		ug/L			10/24/19 11:18	1
Chloroform	ND		1.0		ug/L			10/24/19 11:18	1
Chloromethane	ND		1.0		ug/L			10/24/19 11:18	1
Chlorodibromomethane	ND		0.50		ug/L			10/24/19 11:18	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/24/19 11:18	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/24/19 11:18	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/24/19 11:18	1
Ethylene Dibromide	ND		0.50		ug/L			10/24/19 11:18	1
Dichlorodifluoromethane	ND		0.50		ug/L			10/24/19 11:18	1
1,1-Dichloroethane	ND		0.50		ug/L			10/24/19 11:18	1

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-275067/4

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane			ND		0.50		ug/L			10/24/19 11:18	1
1,1-Dichloroethene			ND		0.50		ug/L			10/24/19 11:18	1
cis-1,2-Dichloroethene			ND		0.50		ug/L			10/24/19 11:18	1
trans-1,2-Dichloroethene			ND		0.50		ug/L			10/24/19 11:18	1
1,2-Dichloropropane			ND		0.50		ug/L			10/24/19 11:18	1
cis-1,3-Dichloropropene			ND		0.50		ug/L			10/24/19 11:18	1
trans-1,3-Dichloropropene			ND		0.50		ug/L			10/24/19 11:18	1
Methylene Chloride			ND		5.0		ug/L			10/24/19 11:18	1
1,1,2,2-Tetrachloroethane			ND		0.50		ug/L			10/24/19 11:18	1
Tetrachloroethene			ND		0.50		ug/L			10/24/19 11:18	1
1,2,4-Trichlorobenzene			ND		1.0		ug/L			10/24/19 11:18	1
1,1,1-Trichloroethane			ND		0.50		ug/L			10/24/19 11:18	1
1,1,2-Trichloroethane			ND		0.50		ug/L			10/24/19 11:18	1
Trichloroethene			ND		0.50		ug/L			10/24/19 11:18	1
Trichlorofluoromethane			ND		1.0		ug/L			10/24/19 11:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane			ND		0.50		ug/L			10/24/19 11:18	1
Vinyl chloride			ND		0.50		ug/L			10/24/19 11:18	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene			100		67 - 130			1
1,2-Dichloroethane-d4 (Surr)			104		72 - 130			1
Toluene-d8 (Surr)			97		70 - 130			1

Lab Sample ID: LCS 720-275067/5

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits
	Added								
Dichlorobromomethane	25.0			26.5		ug/L	106	81 - 130	
Bromoform	25.0			28.0		ug/L	112	75 - 127	
Bromomethane	25.0			26.9		ug/L	107	70 - 132	
Carbon tetrachloride	25.0			27.4		ug/L	109	72 - 142	
Chlorobenzene	25.0			25.4		ug/L	102	76 - 116	
Chloroethane	25.0			28.4		ug/L	114	70 - 131	
Chloroform	25.0			25.6		ug/L	102	82 - 119	
Chloromethane	25.0			30.9		ug/L	123	49 - 134	
Chlorodibromomethane	25.0			26.3		ug/L	105	77 - 133	
1,2-Dichlorobenzene	25.0			24.6		ug/L	99	77 - 117	
1,3-Dichlorobenzene	25.0			25.5		ug/L	102	76 - 116	
1,4-Dichlorobenzene	25.0			25.2		ug/L	101	76 - 116	
Ethylene Dibromide	25.0			24.6		ug/L	98	80 - 121	
Dichlorodifluoromethane	25.0			28.1		ug/L	112	21 - 150	
1,1-Dichloroethane	25.0			27.2		ug/L	109	77 - 119	
1,2-Dichloroethane	25.0			25.9		ug/L	104	73 - 122	
1,1-Dichloroethene	25.0			25.8		ug/L	103	69 - 119	
cis-1,2-Dichloroethene	25.0			27.1		ug/L	109	77 - 117	
trans-1,2-Dichloroethene	25.0			25.4		ug/L	101	79 - 117	
1,2-Dichloropropane	25.0			26.4		ug/L	106	79 - 119	

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Job ID: 720-95666-1

Project/Site: 901/902 Thompson Place-Advanced Micro

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-275067/5

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	25.0	25.3		ug/L	101	82 - 119	
trans-1,3-Dichloropropene	25.0	25.7		ug/L	103	76 - 122	
Methylene Chloride	25.0	25.3		ug/L	101	75 - 117	
1,1,2,2-Tetrachloroethane	25.0	27.2		ug/L	109	70 - 115	
Tetrachloroethene	25.0	24.7		ug/L	99	81 - 130	
1,2,4-Trichlorobenzene	25.0	25.3		ug/L	101	78 - 120	
1,1,1-Trichloroethane	25.0	26.0		ug/L	104	74 - 130	
1,1,2-Trichloroethane	25.0	25.4		ug/L	101	80 - 117	
Trichloroethene	25.0	24.7		ug/L	99	80 - 123	
Trichlorofluoromethane	25.0	27.4		ug/L	109	75 - 141	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.2		ug/L	105	70 - 133	
Vinyl chloride	25.0	31.0		ug/L	124	58 - 138	
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	100		67 - 130				
1,2-Dichloroethane-d4 (Sur)	101		72 - 130				
Toluene-d8 (Sur)	98		70 - 130				

Lab Sample ID: LCSD 720-275067/6

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	25.0	26.9		ug/L	108	81 - 130		2	20
Bromoform	25.0	27.9		ug/L	112	75 - 127		0	20
Bromomethane	25.0	25.4		ug/L	102	70 - 132		6	20
Carbon tetrachloride	25.0	26.9		ug/L	107	72 - 142		2	20
Chlorobenzene	25.0	25.1		ug/L	100	76 - 116		1	20
Chloroethane	25.0	27.0		ug/L	108	70 - 131		5	20
Chloroform	25.0	25.4		ug/L	102	82 - 119		1	20
Chloromethane	25.0	28.9		ug/L	116	49 - 134		6	20
Chlorodibromomethane	25.0	26.8		ug/L	107	77 - 133		2	20
1,2-Dichlorobenzene	25.0	24.7		ug/L	99	77 - 117		0	20
1,3-Dichlorobenzene	25.0	25.2		ug/L	101	76 - 116		1	20
1,4-Dichlorobenzene	25.0	25.2		ug/L	101	76 - 116		0	20
Ethylene Dibromide	25.0	25.0		ug/L	100	80 - 121		2	20
Dichlorodifluoromethane	25.0	25.3		ug/L	101	21 - 150		10	20
1,1-Dichloroethane	25.0	26.7		ug/L	107	77 - 119		2	20
1,2-Dichloroethane	25.0	26.2		ug/L	105	73 - 122		1	20
1,1-Dichloroethene	25.0	24.8		ug/L	99	69 - 119		4	20
cis-1,2-Dichloroethene	25.0	27.0		ug/L	108	77 - 117		0	20
trans-1,2-Dichloroethene	25.0	24.7		ug/L	99	79 - 117		3	20
1,2-Dichloropropane	25.0	26.9		ug/L	108	79 - 119		2	20
cis-1,3-Dichloropropene	25.0	25.8		ug/L	103	82 - 119		2	20
trans-1,3-Dichloropropene	25.0	26.1		ug/L	104	76 - 122		2	20
Methylene Chloride	25.0	24.4		ug/L	98	75 - 117		4	20
1,1,2,2-Tetrachloroethane	25.0	27.0		ug/L	108	70 - 115		1	20
Tetrachloroethene	25.0	24.6		ug/L	98	81 - 130		1	20

Eurofins TestAmerica, Pleasanton

# QC Sample Results

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-275067/6

Matrix: Water

Analysis Batch: 275067

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	78 - 120	1	20
1,1,1-Trichloroethane	25.0	25.6		ug/L		103	74 - 130	1	20
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	80 - 117	2	20
Trichloroethene	25.0	24.6		ug/L		98	80 - 123	1	20
Trichlorofluoromethane	25.0	25.7		ug/L		103	75 - 141	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.9		ug/L		99	70 - 133	5	20
Vinyl chloride	25.0	28.6		ug/L		114	58 - 138	8	20
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits					
4-Bromofluorobenzene		99		67 - 130					
1,2-Dichloroethane-d4 (Sur)		101		72 - 130					
Toluene-d8 (Sur)		99		70 - 130					

Eurofins TestAmerica, Pleasanton

# QC Association Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## GC/MS VOA

### Analysis Batch: 275000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95666-1	16-S	Total/NA	Water	8260B	
720-95666-2	23-S	Total/NA	Water	8260B	
720-95666-3	DW-7	Total/NA	Water	8260B	
720-95666-4	23-D	Total/NA	Water	8260B	
720-95666-5	TB-1	Total/NA	Water	8260B	
720-95666-6	3-D	Total/NA	Water	8260B	
MB 720-275000/8	Method Blank	Total/NA	Water	8260B	
LCS 720-275000/10	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275000/5	Lab Control Sample Dup	Total/NA	Water	8260B	

### Analysis Batch: 275067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-95666-6	3-D	Total/NA	Water	8260B	
MB 720-275067/4	Method Blank	Total/NA	Water	8260B	
LCS 720-275067/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-275067/6	Lab Control Sample Dup	Total/NA	Water	8260B	

# Lab Chronicle

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

**Client Sample ID: 16-S**

Date Collected: 10/17/19 09:48

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275000	10/23/19 13:24	JRM	TAL PLS

**Client Sample ID: 23-S**

Date Collected: 10/17/19 10:56

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275000	10/23/19 13:50	JRM	TAL PLS

**Client Sample ID: DW-7**

Date Collected: 10/17/19 08:41

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275000	10/23/19 14:16	JRM	TAL PLS

**Client Sample ID: 23-D**

Date Collected: 10/17/19 12:01

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	10 mL	10 mL	275000	10/23/19 14:43	JRM	TAL PLS

**Client Sample ID: TB-1**

Date Collected: 10/17/19 07:15

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-5**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275000	10/23/19 15:09	JRM	TAL PLS

**Client Sample ID: 3-D**

Date Collected: 10/17/19 12:06

Date Received: 10/18/19 17:15

**Lab Sample ID: 720-95666-6**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	275000	10/23/19 15:36	JRM	TAL PLS
Total/NA	Analysis	8260B		10	10 mL	10 mL	275067	10/24/19 12:11	AJS	TAL PLS

## Laboratory References:

TAL PLS = Eurofins TestAmerica, Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Eurofins TestAmerica, Pleasanton

# Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

## Laboratory: Eurofins TestAmerica, Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	2496	01-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
USDA	Federal		P330-17-00380

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	1,1,1-Trichloroethane
8260B		Water	1,1,2,2-Tetrachloroethane
8260B		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B		Water	1,1,2-Trichloroethane
8260B		Water	1,1-Dichloroethane
8260B		Water	1,1-Dichloroethene
8260B		Water	1,2,4-Trichlorobenzene
8260B		Water	1,2-Dichlorobenzene
8260B		Water	1,2-Dichloroethane
8260B		Water	1,2-Dichloropropane
8260B		Water	1,3-Dichlorobenzene
8260B		Water	1,4-Dichlorobenzene
8260B		Water	Bromoform
8260B		Water	Bromomethane
8260B		Water	Carbon tetrachloride
8260B		Water	Chlorobenzene
8260B		Water	Chlorodibromomethane
8260B		Water	Chloroethane
8260B		Water	Chloroform
8260B		Water	Chloromethane
8260B		Water	cis-1,2-Dichloroethene
8260B		Water	cis-1,3-Dichloropropene
8260B		Water	Dichlorobromomethane
8260B		Water	Dichlorodifluoromethane
8260B		Water	Ethylene Dibromide
8260B		Water	Methylene Chloride
8260B		Water	Tetrachloroethene
8260B		Water	trans-1,2-Dichloroethene
8260B		Water	trans-1,3-Dichloropropene
8260B		Water	Trichloroethene
8260B		Water	Trichlorofluoromethane
8260B		Water	Vinyl chloride

Eurofins TestAmerica, Pleasanton

# Method Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
5030B	Purge and Trap	SW846	TAL PLS

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PLS = Eurofins TestAmerica, Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Sample Summary

Client: Haley & Aldrich, Inc.

Project/Site: 901/902 Thompson Place-Advanced Micro

Job ID: 720-95666-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
720-95666-1	16-S	Water	10/17/19 09:48	10/18/19 17:15	
720-95666-2	23-S	Water	10/17/19 10:56	10/18/19 17:15	
720-95666-3	DW-7	Water	10/17/19 08:41	10/18/19 17:15	
720-95666-4	23-D	Water	10/17/19 12:01	10/18/19 17:15	
720-95666-5	TB-1	Water	10/17/19 07:15	10/18/19 17:15	
720-95666-6	3-D	Water	10/17/19 12:06	10/18/19 17:15	

Eurofins TestAmerica, Pleasanton

TestAmerica Pleasanton

1220 Quarry Lane

**720-95666**

Pleasanton, CA 94566-4756

phone 925.484.1919 fax 925.600.3002

**Chain of Custody Record for  
Haley & Aldrich, Inc. Blanket Service Agreement #2015-18-TestAmerica**

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

11298A  
TestAmerica Laboratories, Inc.

TestAmerica's services under this CoC shall be performed in accordance with the T&amp;Cs within Blanket Service Agreement# 2015-18-TestAmerica by and between Haley &amp; Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc..

Regulatory Program:  DW  NPDES  RCRA  Other:

Client Contact		H&A Project Manager: Mike Calhoun		H&A Site Contact:		Date:		COC No:				
Haley & Aldrich 1956 Webster Street, Suite 300 Oakland, CA 94612 510-879-4554 Phone 510-879-4579 FAX H&A Project Number : 127819 Site: Former 901/902 Thompson Place H&A P O # 127819-002 SID 2		Tel/Fax: 510-879-4554		Lab Contact: Dimple Sharma		Carrier:		of COCs				
		Analysis Turnaround Time						Sampler:				
		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS						For Lab Use Only:				
		TAT if different from Below										
		<input type="checkbox"/> 2 weeks										
		<input checked="" type="checkbox"/> 1 week										
		<input type="checkbox"/> 2 days										
		<input type="checkbox"/> 1 day										
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample Y/N ( )	Perform MS / MSD Y/N ( )	VOCs (modified list) - EPA 8260	TOC - SM5310	720-95666 Chain of Custody	Sample Specific Notes:
1.	16-S	10/17/19	0900g	G	w	3	X					
2.	23-S		1056	G	w	3	X					
3.	DW-7		0841	G	w	3	X					
4.	23-D		1201	G	v	3	X					
5.	TB-1		0715	G	v	2	X					
6.	3-D		1206	G	w	3	X					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other												
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.												
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for Months						
Special Instructions/QC Requirements & Comments: <b>PLEASE NOTE: 7-Day TAT for VOC analysis due to high reactivity in HCL Voas</b> <b>PLEASE NOTE: project-specific list of VOCs (8010 list plus Freon 113 and 1,2,4-trichlorobenzene)</b>												
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corr'd:		Therm ID No.:				
Relinquished by: <i>JL</i>		Company: BT3		Date/Time: 10/18/19 1435		Received by: <i>WY</i>		Company: BT3 (sample customer)		Date/Time: 10/18/19 1435		
Relinquished by: <i>C BEE</i>		Company: BT3		Date/Time: 10/18/19 1530		Received by: <i>JESSICA KEMPE</i>		Company: ACS Company		Date/Time: 10/18/19 1715		
Relinquished by: <i>Jenice Kilhore</i>		Company: BGS		Date/Time: 10/18/19 1515		Received in Laboratory by: <i>Jessica Kempe</i>		Company: EFA-13		Date/Time: 10/18/19 1715		

Page 24 of 25

Form No. CA-C-WI-045, Rev. 1.2, dated 10/14/2019

10/28/2019



ED\_013213\_00001030-00185

## Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 720-95666-1

**Login Number:** 95666

**List Source:** Eurofins TestAmerica, Pleasanton

**List Number:** 1

**Creator:** Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## **APPENDIX E**

### **Quality Assurance/Quality Control Data**

## Data Usability Summary Report

**Project Name:** 901/902 Thompson Place – Advanced Micro Devices

**Analytical Laboratory:** Eurofins TestAmerica Laboratories, Inc. – Pleasanton, CA

**Validation Performed by:** Vanessa Godard

**Validation Reviewed by:** Katherine Miller

**Validation Date:** November 2019

---

Haley & Aldrich, Inc., prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the 901/902 Thompson Place groundwater samples collected on 17 & 18 October 2019. The analytical results for Sample Delivery Group(s) (SDG) listed below were reviewed to determine the data's usability. This data validation and usability assessment was performed per the guidance and requirements established by the U.S. Environmental Protection Agency's (EPA) "National Functional Guidelines for Organic Data Review". The following quality assurance/quality control criteria from the analysis of the project samples were reviewed as applicable:

1. Sample Delivery Group Number 720-95666-1
  2. Sample Delivery Group Number 720-95667-1
- ✿ Holding Times/Preservation
  - ✿ Reporting Limits and Sample Dilution
  - ✿ Blank Sample Analysis
  - ✿ Surrogate Recovery Compliance
  - ✿ Laboratory Control Samples
  - ✿ Matrix Spike Samples
  - ✿ Laboratory and Field Duplicate Sample Analysis
  - ✿ System Performance and Overall Assessment

Analytical precision and accuracy were evaluated based on the laboratory control, matrix spike, or laboratory duplicate analyses performed concurrently with the project samples or based on field duplicates collected at the site.

Data reported in this sampling event were reported to the laboratory reporting limit (RL).

Sample data were qualified in accordance with laboratory's standard operating procedures (SOPs). The results presented in each laboratory report were found to be compliant with the data quality objectives for the project and usable; any exceptions are noted in the following pages.

## 1. Sample Delivery Group Number 720-95666-1

### 1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number 720-95666-1. Samples were collected, preserved, and shipped following standard chain of custody protocol. Samples were also received appropriately, identified correctly, and analyzed according to the monitoring schedule. Chains of custody were appropriately signed and dated by the field and/or laboratory personnel with the following exceptions:

- \* Custody seals were not utilized on the sample cooler(s).

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Collection Date	Matrix	Methods	Holding Time
16-S	N	720-95666-1	10/17/2019	Groundwater	Volatile Organic Compounds (VOCs) by EPA 8260B	7 days unpreserved, 14 days preserved
23-S	N	720-95666-2	10/17/2019	Groundwater		
DW-7	N	720-95666-3	10/17/2019	Groundwater		
23-D	N	720-95666-4	10/17/2019	Groundwater		
TB-1	TB	720-95666-5	10/17/2019	Blank		
3-D	FD	720-95666-6	10/17/2019	Groundwater		

### 1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol with the following exceptions:

Method	Matrix	Holding Time	Preservation	Sample ID, Violation, Qualification
EPA 8260B	Water	7 days unpreserved; 14 days preserved	Cool to ≤ 6 °C; pH < 2 with HCl; No Headspace	Sample 3-D was analyzed from a vial containing headspace. "J-/U" all data, unless low level detections have been seen historically, in which case that analyte should be rejected. No rejections are required upon review of historical data.

Cooler temperature on arrival to the laboratory was: 4.2 Degrees C.

### 1.3 REPORTING LIMITS AND SAMPLE DILUTION

All dilutions were reviewed and found to be justified. Any non-detects with elevated reported limits are noted and explained below.

Sample ID	Lab ID	Analyte/ Method	Dilution Factor	Issue/Explanation
23-D	720-95666-4	VOCs by EPA 8260B	5x	Dilution required due to high target analyte concentrations.

### 1.4 SURROGATE RECOVERY COMPLIANCE

Surrogates, also known as deuterated monitoring compounds, are compounds added to each sample prior to sample preparation to evaluate the percent recovery (%R) to ensure that the organic analytical method is efficient. The %R were within the specified limits.

## 1.5 BLANK SAMPLE ANALYSIS

Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

Field blanks are prepared to identify contamination that may have been introduced during field activity. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport. Blank samples for field quality control had no detections, indicating that no contamination from field activities occurred.

## 1.6 LABORATORY CONTROL SAMPLES

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. Compounds associated with the LCS/LCSD analyses exhibited recoveries and relative percent difference (RPDs) within the specified limits.

## 1.7 MATRIX SPIKE SAMPLES

Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effect of the sample matrix on the sample preparation procedures and measurement methodologies. No client samples were used for MS/MSD analysis in this SDG.

## 1.8 LABORATORY AND FIELD DUPLICATE SAMPLES

The laboratory duplicate sample analysis is used by the laboratory at the time of analysis to demonstrate acceptable method precision. The laboratory did not analyze any laboratory duplicates in this SDG.

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The RPD comparison for any field duplicates in this SDG is shown below. RPDs were all below 35% for water (or the absolute difference rule was satisfied if detects were less than 5x the RL).

### **Field Duplicate RPD Calculations:**

Method(s): EPA 8260B				
Analyte ( $\mu\text{g}/\text{L}$ )	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	23-D	3-D		
cis-1,2-Dichloroethene	4.1	4.1	NA	None, Abs. Diff. < RL
Trichloroethene	240	290	19	None, RPD < 35%
Trifluorotrichloroethane	2.5 U	2.5	NA	None, Abs. Diff. < RL
All Remaining VOCs	ND U	ND U	NA	None, Both ND

## 1.9 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by analytical method. Based on the review of this report, the data are 100% useable. A summary of qualifiers applied to this SDG are shown below.

Sample ID	Analyte	Reported Result	Validated Result	Reason for Qualifier
3-D	All VOCs	Detect/ND U	Detect J-/ND UJ	Headspace in Vial Analyzed

## 2. Sample Delivery Group Number 720-95667-1

### 2.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number 720-95667-1. Samples were collected, preserved, and shipped following standard chain of custody protocol. Samples were also received appropriately, identified correctly, and analyzed according to the monitoring schedule. Chains of custody were appropriately signed and dated by the field and/or laboratory personnel with the following exceptions:

- \* Custody seals were not utilized on the sample cooler(s).

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Collection Date	Matrix	Methods	Holding Time
35-DDD	N	720-95667-1	10/17/2019	Groundwater	Volatile Organic Compounds (VOCs) by EPA 8260B	7 days unpreserved, 14 days preserved
15-S	N	720-95667-2	10/17/2019	Groundwater		
29-S	N	720-95667-3	10/17/2019	Groundwater		
29-D	N	720-95667-4	10/17/2019	Groundwater		
36-D	N	720-95667-5	10/17/2019	Groundwater		
52-D	N	720-95667-6	10/17/2019	Groundwater		
53-D	N	720-95667-7	10/17/2019	Groundwater		
27-D	N	720-95667-8	10/18/2019	Groundwater		
1-D	FD	720-95667-9	10/18/2019	Groundwater		
36-DD	N	720-95667-10	10/18/2019	Groundwater		
EB-1	EB	720-95667-11	10/17/2019	Blank		
36-S	N	720-95667-12	10/18/2019	Groundwater		
37-S	N	720-95667-13	10/18/2019	Groundwater		
28-D	N	720-95667-14	10/18/2019	Groundwater		
27-DD	N	720-95667-15	10/18/2019	Groundwater		
28-S	N	720-95667-16	10/18/2019	Groundwater		
22-S	N	720-95667-17	10/18/2019	Groundwater		
22-DD	N	720-95667-18	10/18/2019	Groundwater		
EB-2	EB	720-95667-19	10/18/2019	Blank		
27-S	N	720-95667-20	10/18/2019	Groundwater		
2-D	FD	720-95667-21	10/18/2019	Groundwater		

### 2.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol with the following exceptions:

Method	Matrix	Holding Time	Preservation	Sample ID, Violation, Qualification
EPA 8260B	Water	7 days unpreserved; 14 days preserved	Cool to ≤ 6 °C; pH < 2 with HCl; No Headspace	Sample 28-D and 27-DD were analyzed from a vial containing headspace. "J-/UJ" all data, unless low level detections have been seen historically, in which case that analyte should be rejected. Reject Chloroethane, trans-1,2-DCE and TCE for 28-D. No rejections are required for 27-DD upon review of historical data.

Cooler temperature on arrival to the laboratory was: 4.2 Degrees C.

## 2.3 REPORTING LIMITS AND SAMPLE DILUTION

All dilutions were reviewed and found to be justified. Any non-detects with elevated reported limits are noted and explained below.

Sample ID	Lab ID	Analyte/ Method	Dilution Factor	Issue/Explanation
27-S	720-95667-20	VOCs by EPA 8260B	10x	Dilution required due to high target analyte concentrations.
2-D	720-95667-21			

## 2.4 BLANK SAMPLE ANALYSIS

Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Blank samples for field quality control had no detections, indicating that no contamination from field activities occurred.

## 2.5 SURROGATE RECOVERY COMPLIANCE

Surrogates, also known as deuterated monitoring compounds, are compounds added to each sample prior to sample preparation to evaluate the percent recovery (%R) to ensure that the organic analytical method is efficient. The %R were within the specified limits.

## 2.6 LABORATORY CONTROL SAMPLES

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. Compounds associated with the LCS/LCSD analyses exhibited recoveries and relative percent difference (RPDs) within the specified limits.

## 2.7 MATRIX SPIKE SAMPLES

Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effect of the sample matrix on the sample preparation procedures and measurement methodologies. The sample(s) below were used for MS/MSD:

Lab Sample Number	Matrix Spike/ Matrix Spike Duplicate Sample Client ID	Method(s)
720-95667-2	15-S	VOCs by EPA 8260B
720-95667-3	29-S	VOCs by EPA 8260B
720-95667-7	53-D	VOCs by EPA 8260B
720-95667-17	22-S	VOCs by EPA 8260B

The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits.

## 2.8 LABORATORY AND FIELD DUPLICATE SAMPLES

The laboratory duplicate sample analysis is used by the laboratory at the time of analysis to demonstrate acceptable method precision. The laboratory did not analyze any laboratory duplicates in this SDG.

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The RPD comparison for any field duplicates in this SDG is shown below. RPDs were all below 35% for water (or the absolute difference rule was satisfied if detects were less than 5x the RL).

### Field Duplicate RPD Calculations:

Method(s): EPA 8260B				
Analyte ( $\mu\text{g/L}$ )	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	27-D	1-D		
1,2,4-Trichlorobenzene	2.4	2.3	NA	None, Abs. Diff. < RL
cis-1,2-Dichloroethene	2.1	2.1	NA	None, Abs. Diff. < RL
Tetrachloroethene	3.8	3.7	3	None, RPD < 35%
Trichloroethene	67	67	0	None, RPD < 35%
All Remaining VOCs	ND U	ND U	NA	None, Both ND
Analyte ( $\mu\text{g/L}$ )	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	27-S	2-D		
1,2,4-Trichlorobenzene	14	15	NA	None, Abs. Diff. < RL
1,3-Dichlorobenzene	30	31	3	None, RPD < 35%
1,4-Dichlorobenzene	5.3	5.4	NA	None, Abs. Diff. < RL
cis-1,2-Dichloroethene	290	290	0	None, RPD < 35%
trans-1,2-Dichloroethene	14	15	NA	None, Abs. Diff. < RL
Trichloroethene	35	34	3	None, RPD < 35%
Vinyl chloride	15	16	NA	None, Abs. Diff. < RL
All Remaining VOCs	ND U	ND U	NA	None, Both ND

## 2.9 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by analytical method. Based on the review of this report, the data are 100% useable except for rejected data noted below. A summary of qualifiers applied to this SDG are shown below.

Sample ID	Analyte	Reported Result	Validated Result	Reason for Qualifier
28-D	Chloroethane	1.0 U	Reject	Headspace in Vial Analyzed
	trans-1,2-Dichloroethene	0.50 U	Reject	
	Trichloroethene	0.50 U	Reject	
	All Remaining VOCs	Detect/ND U	Detect J-/ND UJ	
27-DD	All VOCs	Detect/ND U	Detect J-/ND UJ	

## References

1. United States Environmental Protection Agency, 2017b. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. January.

## Glossary

- \* Sample Types:
  - N Primary Sample
  - FD Field Duplicate Sample
  - FB Field Blank Sample
  - EB Equipment Blank Sample
  - TB Trip Blank Sample
- \* Units:
  - $\mu\text{g/L}$  or ug/L microgram per liter
  - mg/L milligram per liter
- \* Table Footnotes:
  - NA Not applicable
  - ND Non-detect

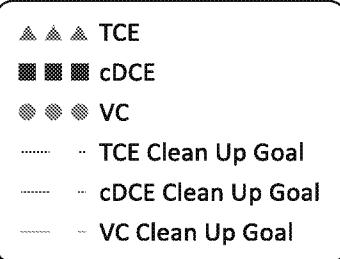
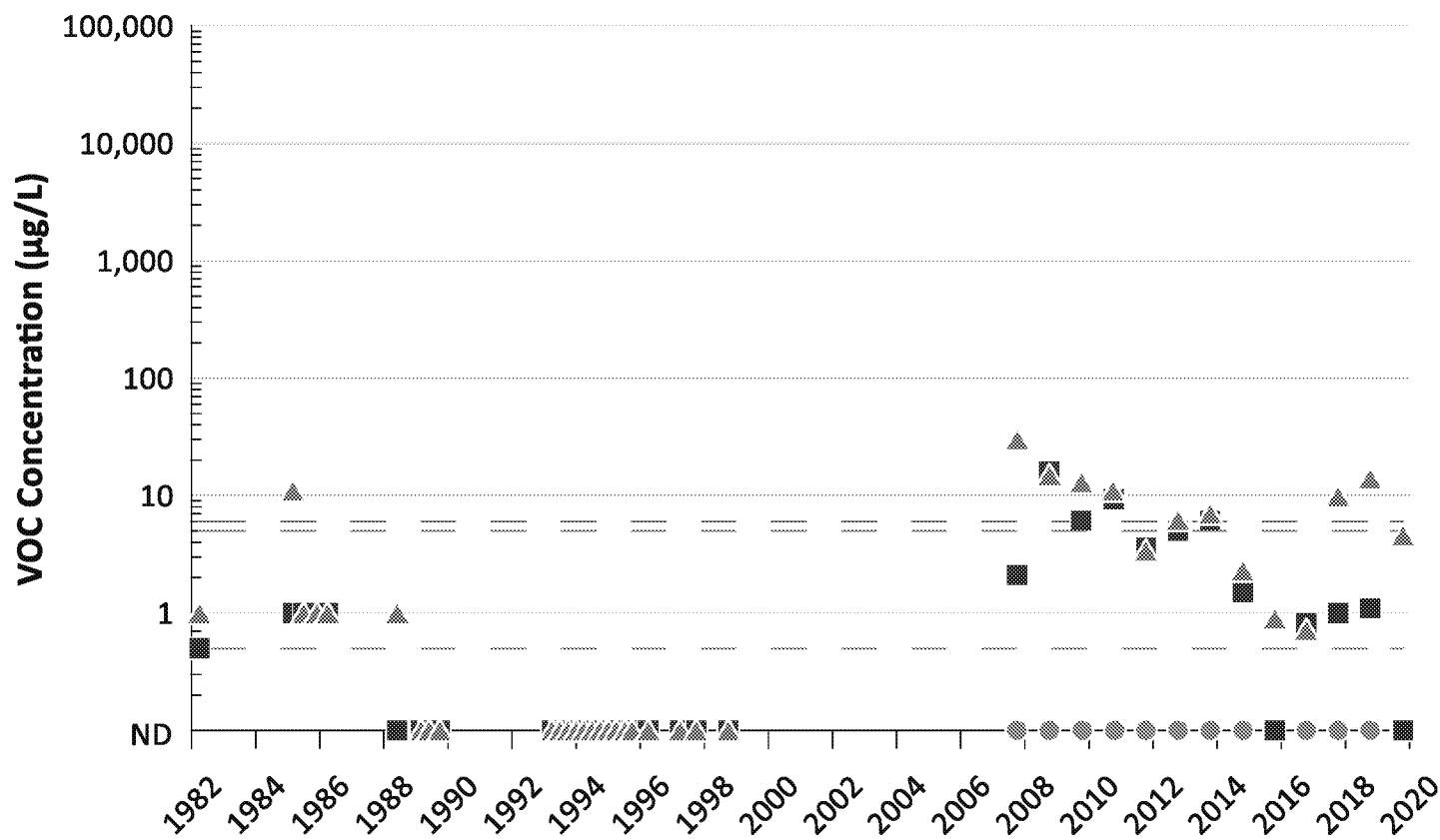
Results are qualified with the following codes in accordance with EPA National Functional Guidelines:

- \* Concentration (C) Qualifiers:
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.
- \* Quantitation (Q) Qualifiers:
  - E The compound was quantitated above the calibration range.
  - D The concentration is based on a diluted sample analysis.
- \* Validation Qualifiers:
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - J+ The result is an estimated quantity, but the result may be biased high.
  - J- The result is an estimated quantity, but the result may be biased low.
  - UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is therefore an estimated concentration only.
  - R The sample results were rejected as unusable; the compound may or may not be present in the sample.

## **APPENDIX F**

### **Concentration Trend Plots for Site Monitoring Wells**

**15-S**



#### ABBREVIATIONS

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

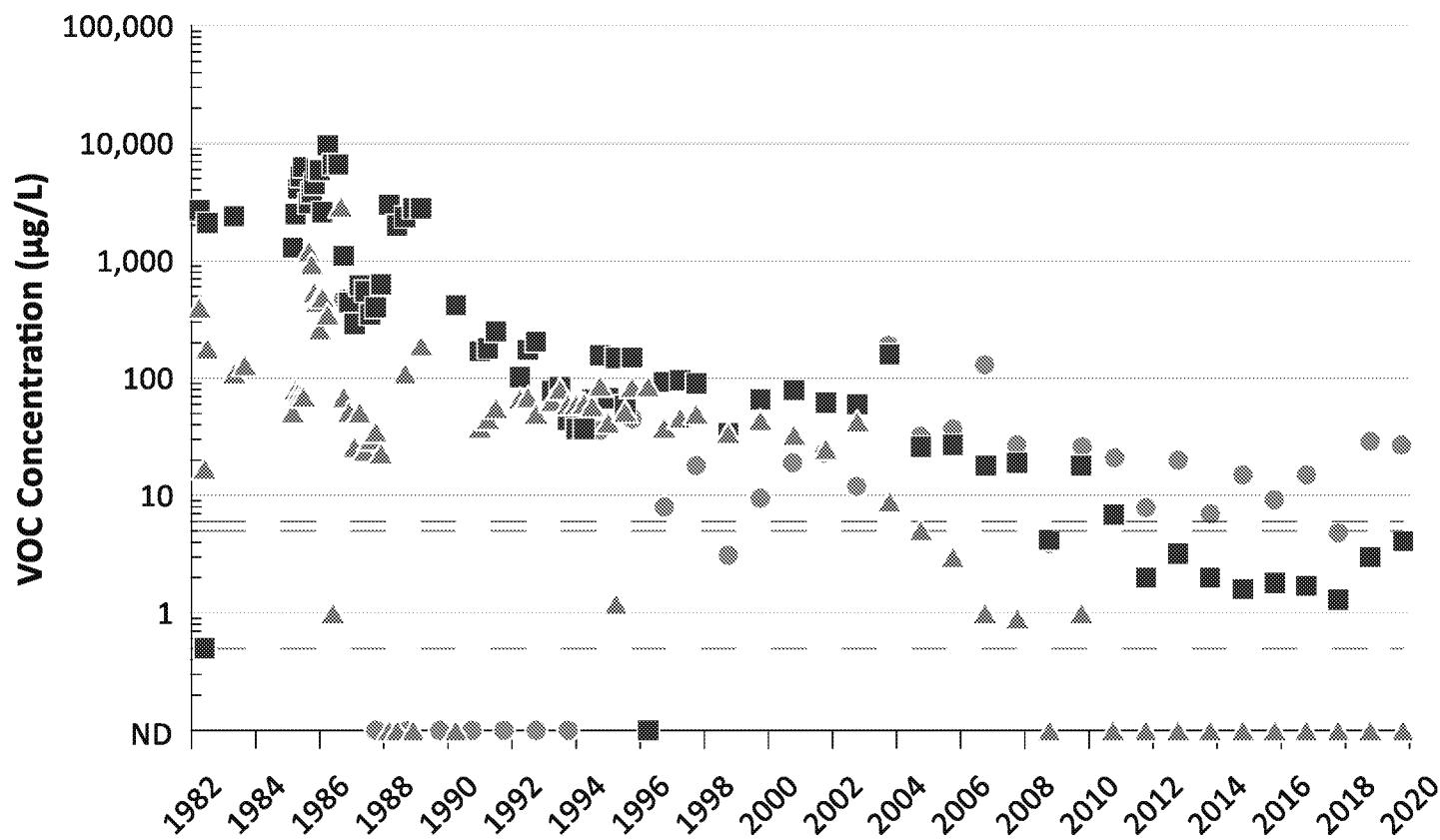
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 15-S

JANUARY 2020

**FIGURE F-1**

# 16-S



▲▲▲ TCE  
■■■ cDCE  
●●● VC  
--- TCE Clean Up Goal  
--- cDCE Clean Up Goal  
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

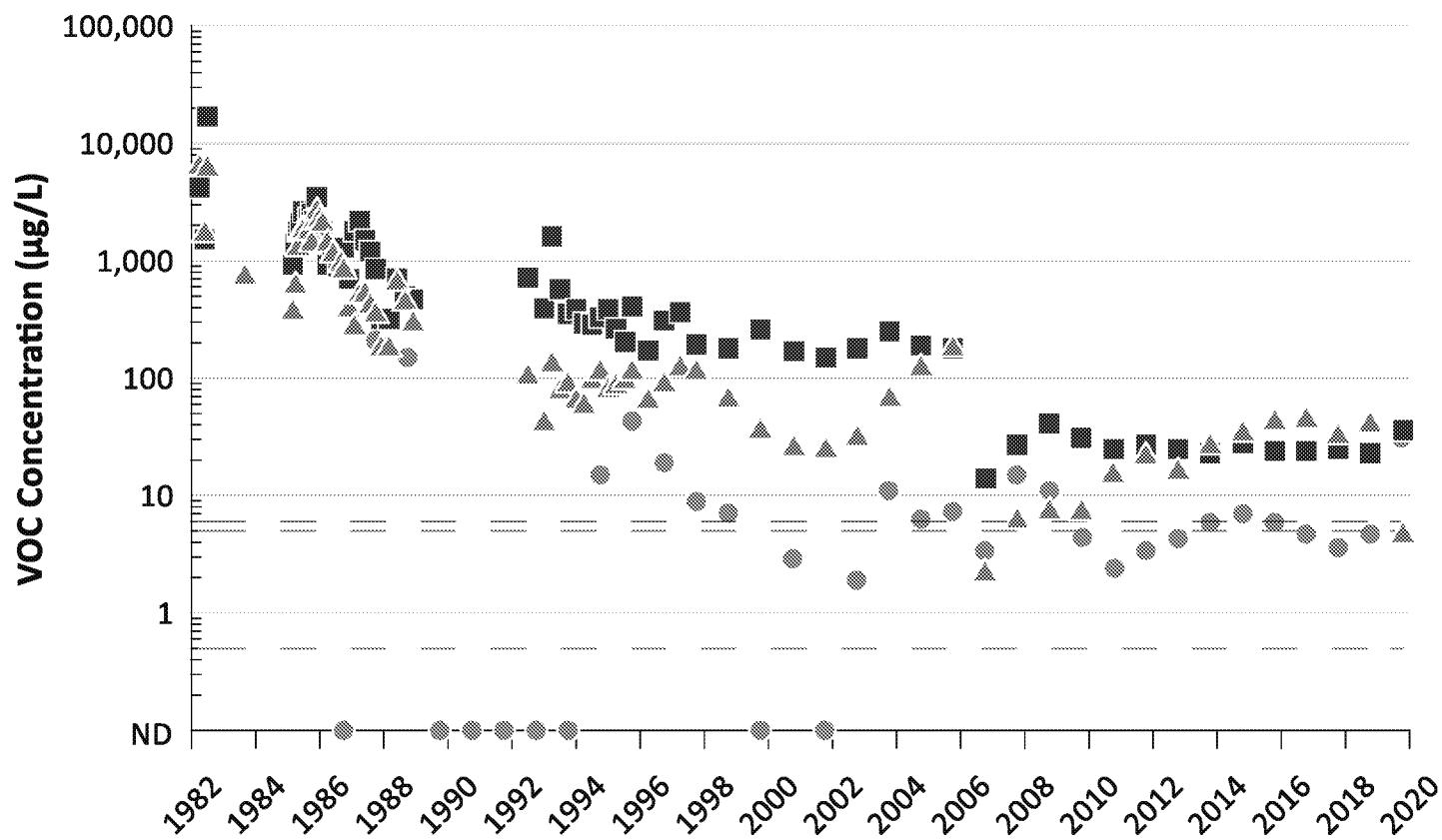
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 16-S

JANUARY 2020

FIGURE F-2

**22-S**



- ▲▲▲ TCE
- cDCE
- VC
- - - TCE Clean Up Goal
- - - cDCE Clean Up Goal
- - - VC Clean Up Goal

**ABBREVIATIONS**

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

**HALEY ALDRICH**

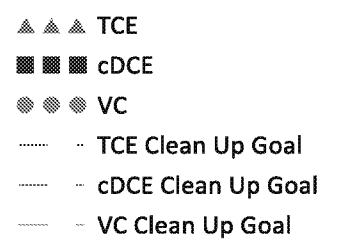
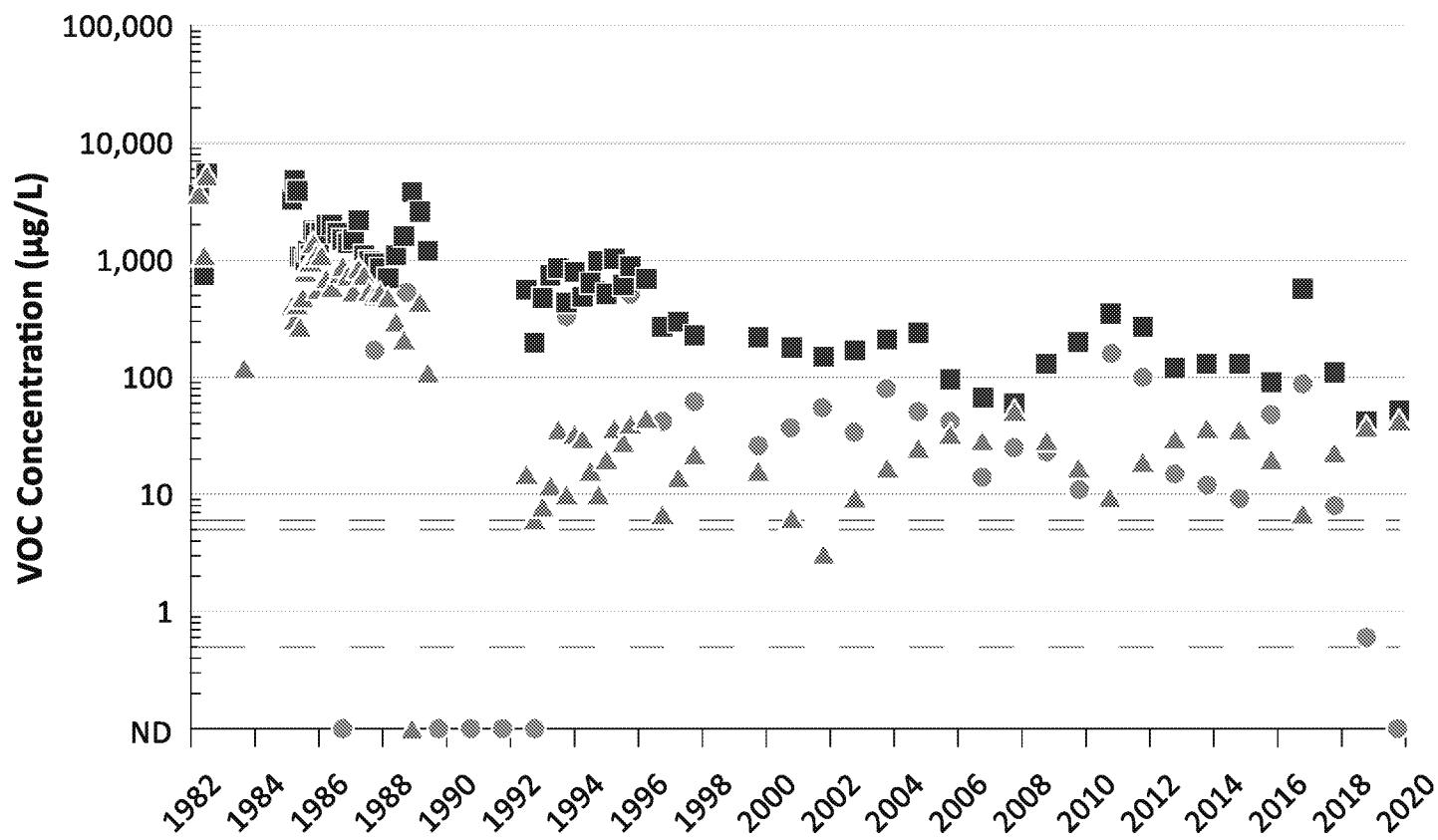
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

**CONCENTRATION TRENDS FOR  
WELL 22-S**

JANUARY 2020

**FIGURE F-3**

**23-S**



**ABBREVIATIONS**

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

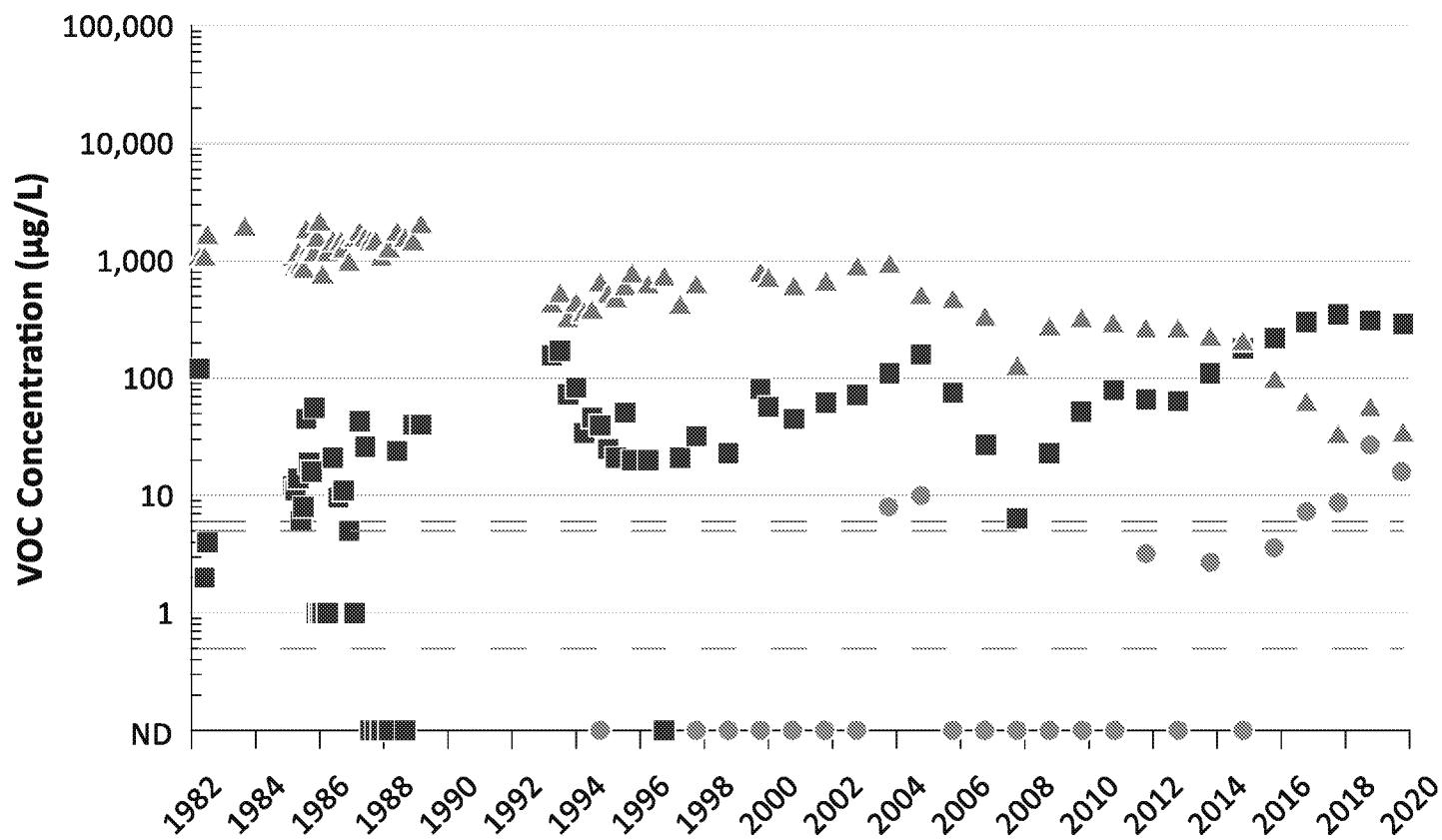
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 23-S

JANUARY 2020

**FIGURE F-4**

**27-S**



- ▲▲▲ TCE
- cDCE
- VC
- - - TCE Clean Up Goal
- - - cDCE Clean Up Goal
- - - VC Clean Up Goal

**ABBREVIATIONS**

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

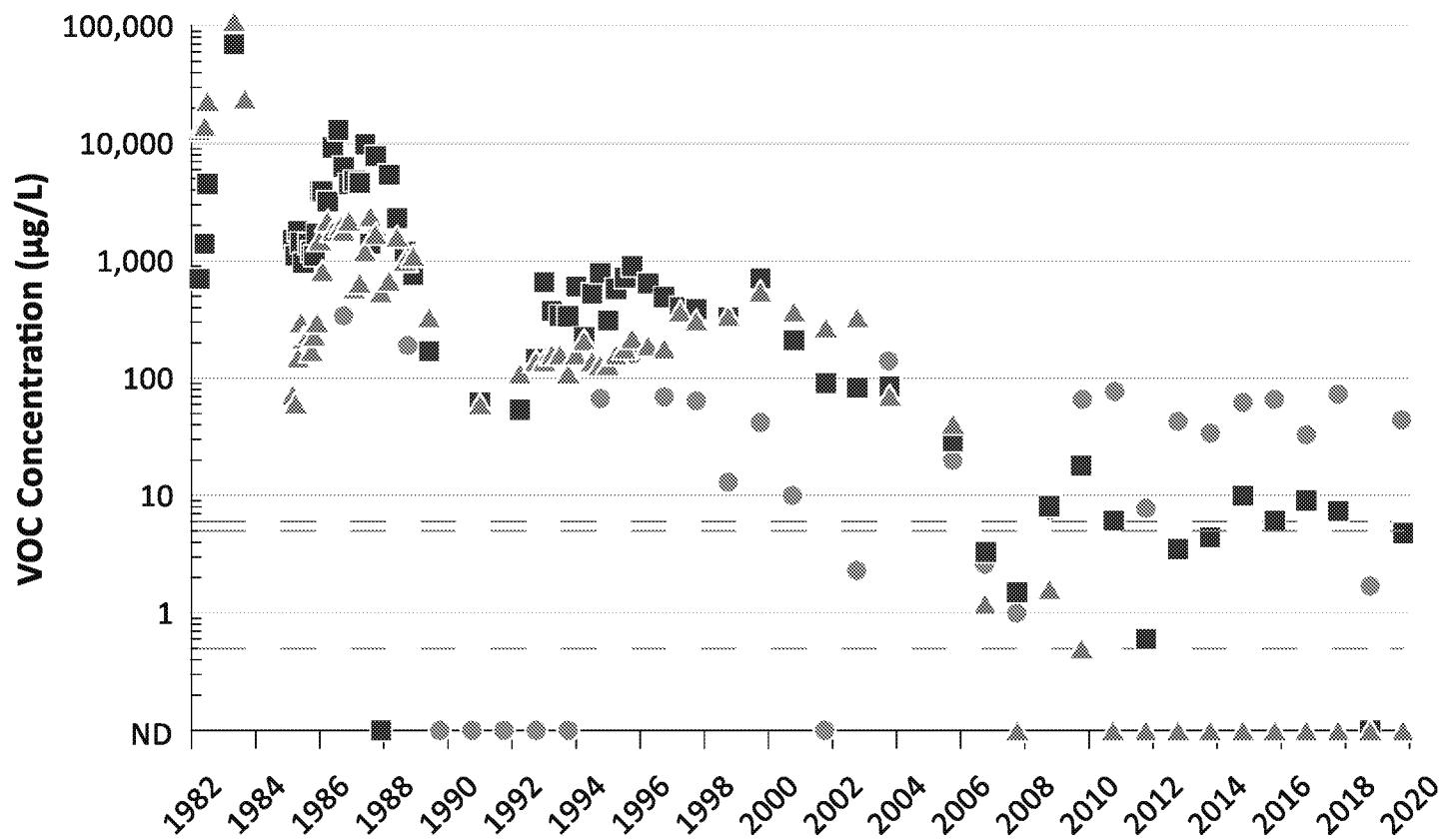
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 27-S

JANUARY 2020

**FIGURE F-5**

# 28-S



▲▲▲ TCE
■■■ cDCE
●●● VC
--- TCE Clean Up Goal
--- cDCE Clean Up Goal
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
 cDCE = CIS-1,2-DICHLOROETHENE  
 VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

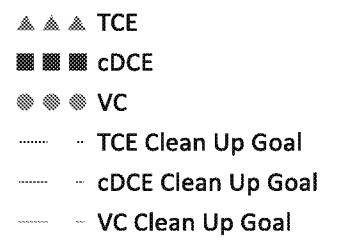
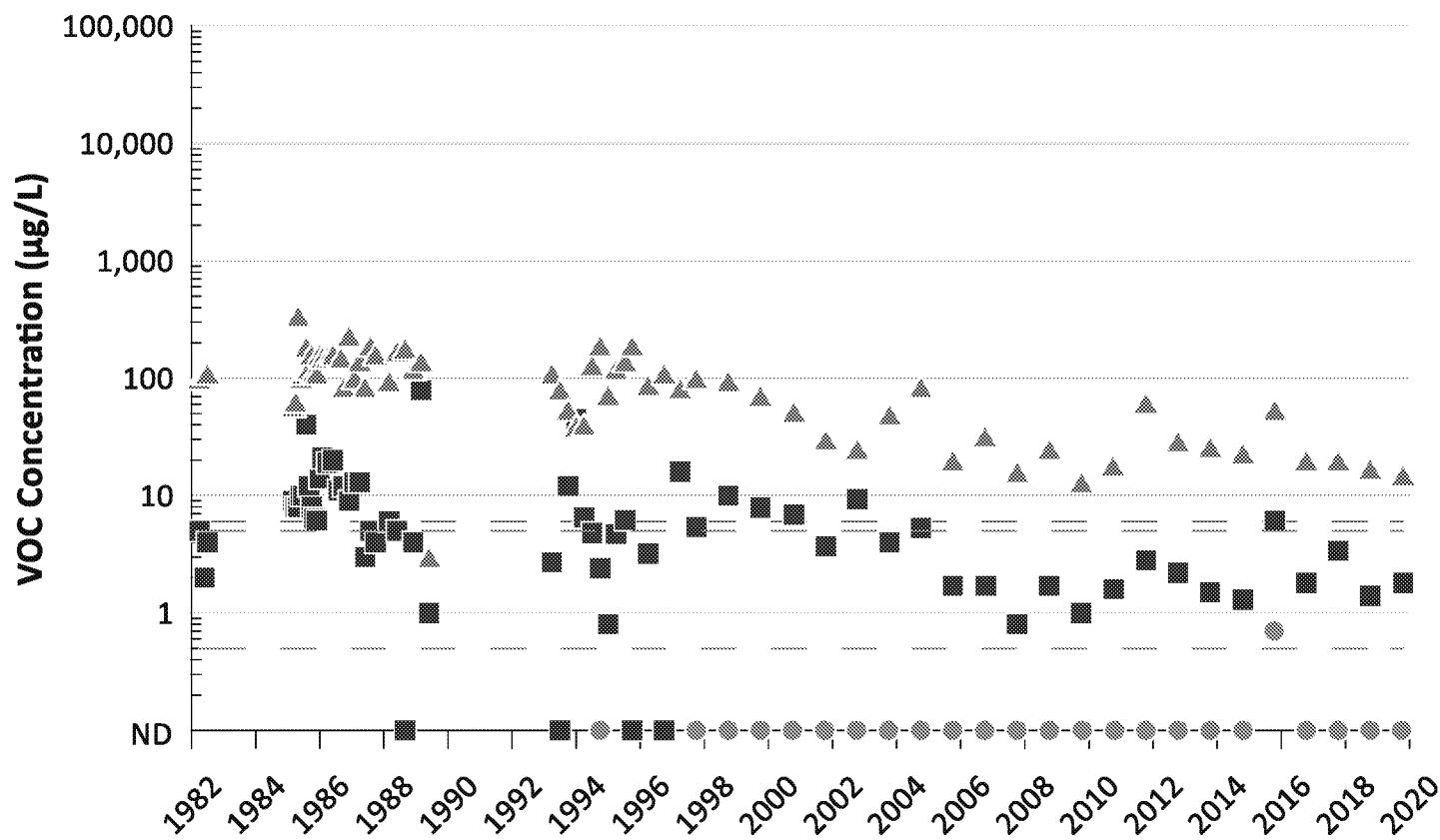
FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
 WELL 28-S

JANUARY 2020

FIGURE F-6

**29-S**



**ABBREVIATIONS**

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

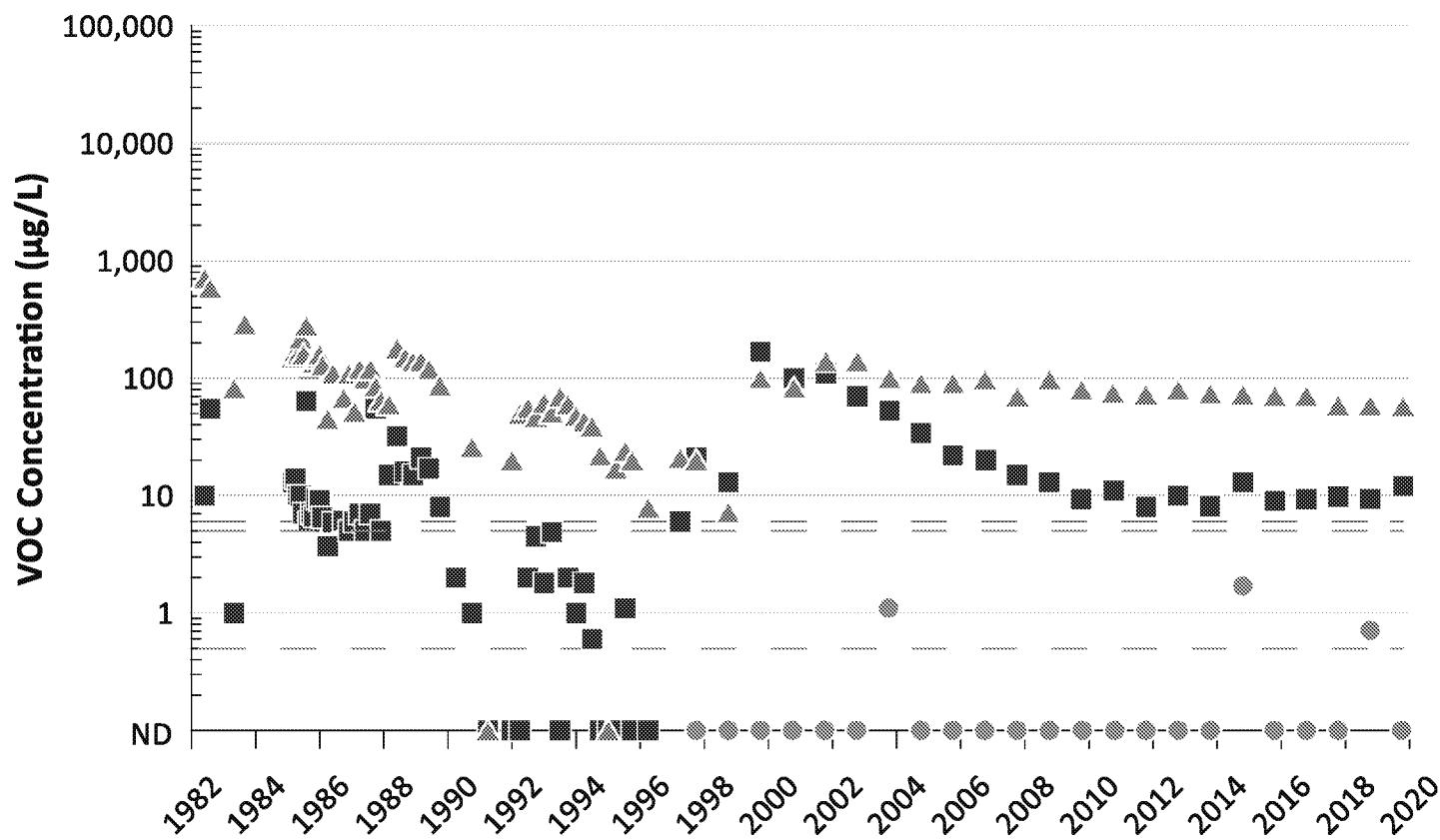
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

**CONCENTRATION TRENDS FOR  
WELL 29-S**

JANUARY 2020

**FIGURE F-7**

# 36-S



- ▲▲▲ TCE
- cDCE
- VC
- - - TCE Clean Up Goal
- - - cDCE Clean Up Goal
- - - VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
 cDCE = CIS-1,2-DICHLOROETHENE  
 VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

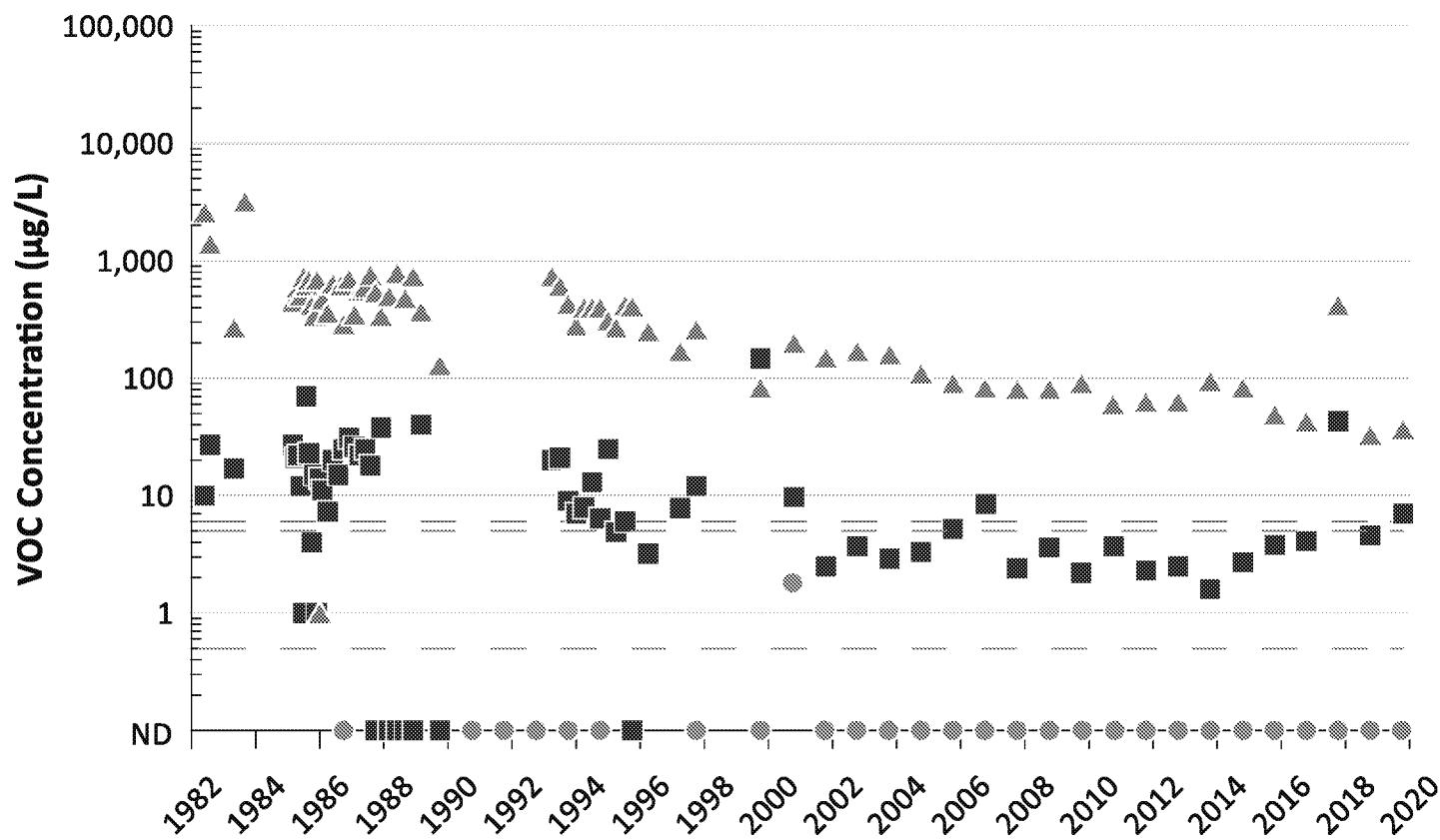
FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
 WELL 29-S

JANUARY 2020

**FIGURE F-8**

**37-S**



- ▲▲▲ TCE
- cDCE
- VC
- - - TCE Clean Up Goal
- - - cDCE Clean Up Goal
- - - VC Clean Up Goal

**ABBREVIATIONS**

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

**HALEY ALDRICH**

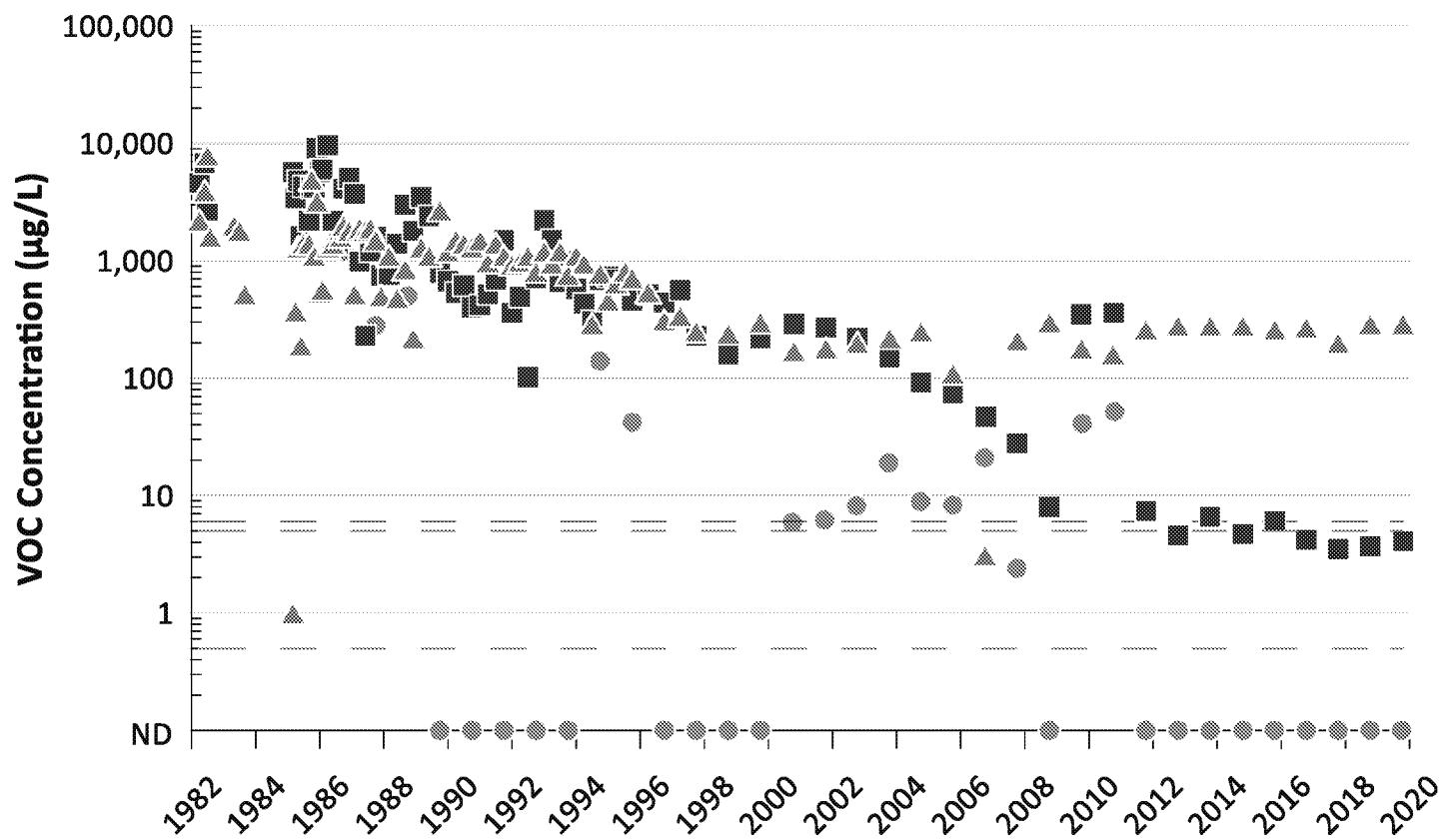
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

**CONCENTRATION TRENDS FOR  
WELL 37-S**

JANUARY 2020

**FIGURE F-9**

# 23-D



▲▲▲ TCE
■■■ cDCE
●●● VC
--- TCE Clean Up Goal
--- cDCE Clean Up Goal
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
 cDCE = CIS-1,2-DICHLOROETHENE  
 VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

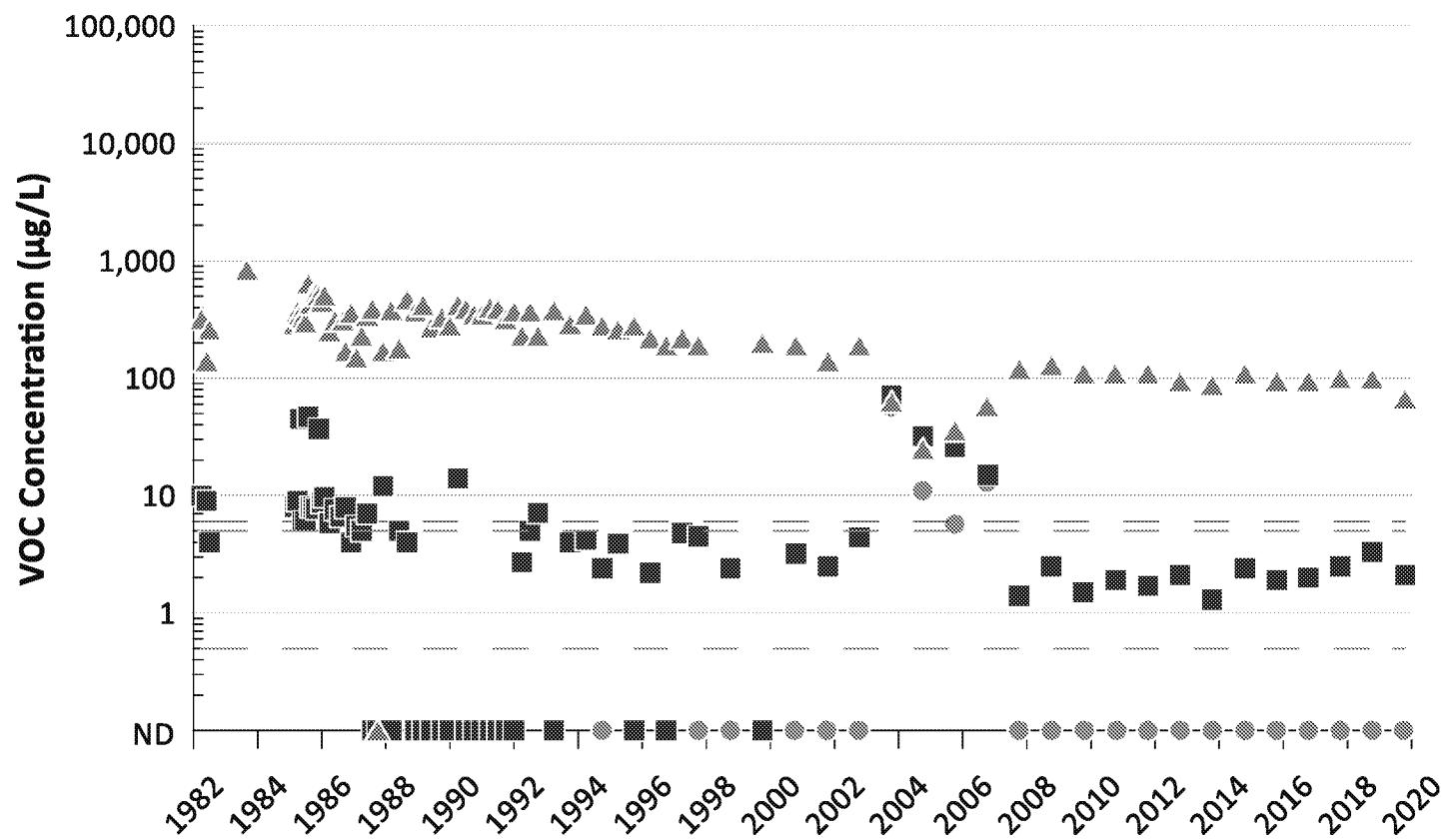
FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
 WELL 23-D

JANUARY 2020

FIGURE F-10

# 27-D



▲▲▲ TCE  
■■■ cDCE  
●●● VC  
— TCE Clean Up Goal  
— cDCE Clean Up Goal  
— VC Clean Up Goal

#### ABBREVIATIONS

TCE = TRICHLOROETHENE  
 cDCE = CIS-1,2-DICHLOROETHENE  
 VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

**HALEY ALDRICH**

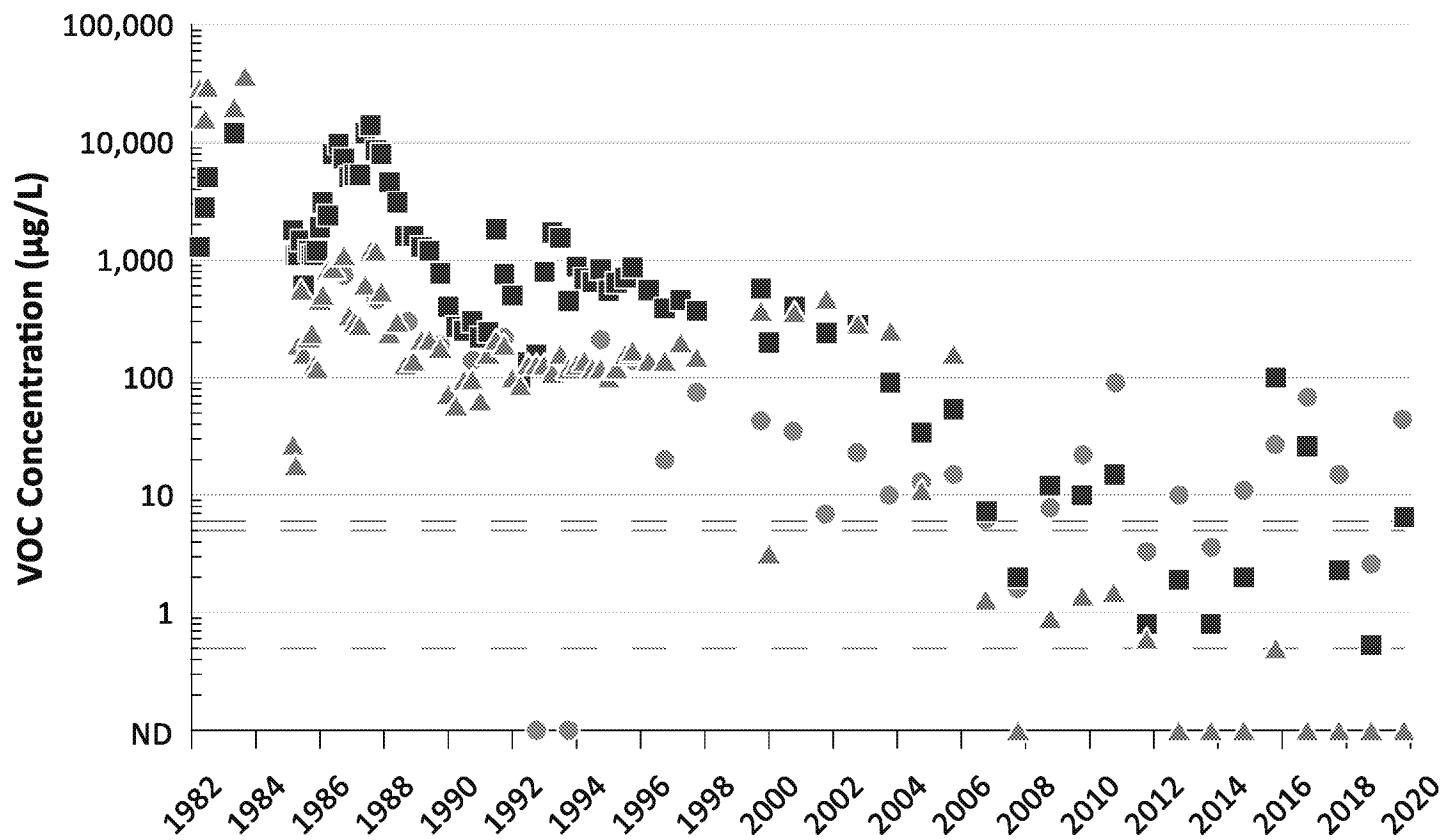
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 27-D

JANUARY 2020

**FIGURE F-11**

# 28-D



▲▲▲ TCE  
■■■ cDCE  
●●● VC  
--- TCE Clean Up Goal  
--- cDCE Clean Up Goal  
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
µg/L = MICROGRAMS PER LITER

HALEY ALDRICH

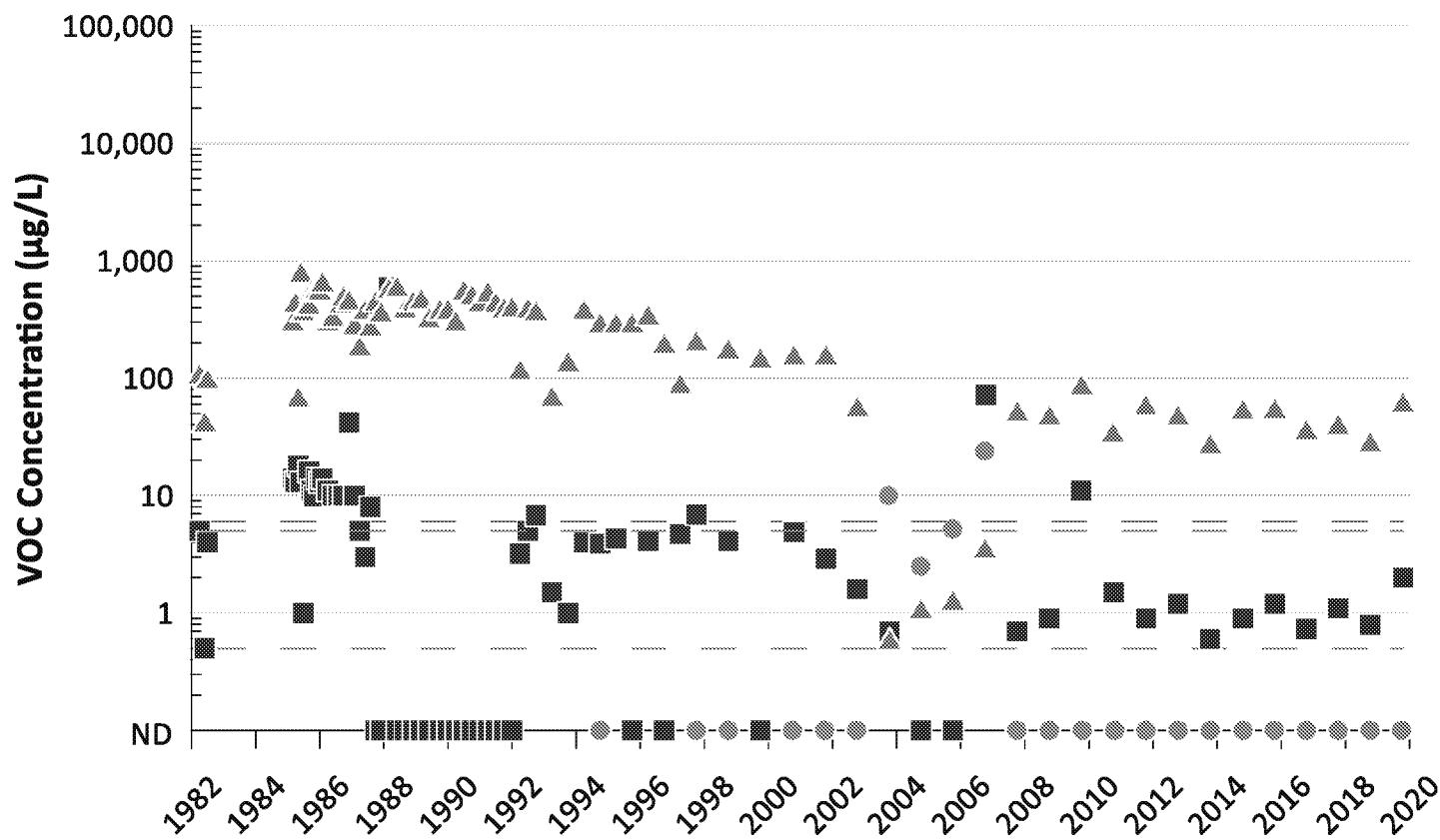
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 28-D

JANUARY 2020

FIGURE F-12

# 29-D



▲▲▲ TCE  
■■■ cDCE  
●●● VC  
--- TCE Clean Up Goal  
--- cDCE Clean Up Goal  
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

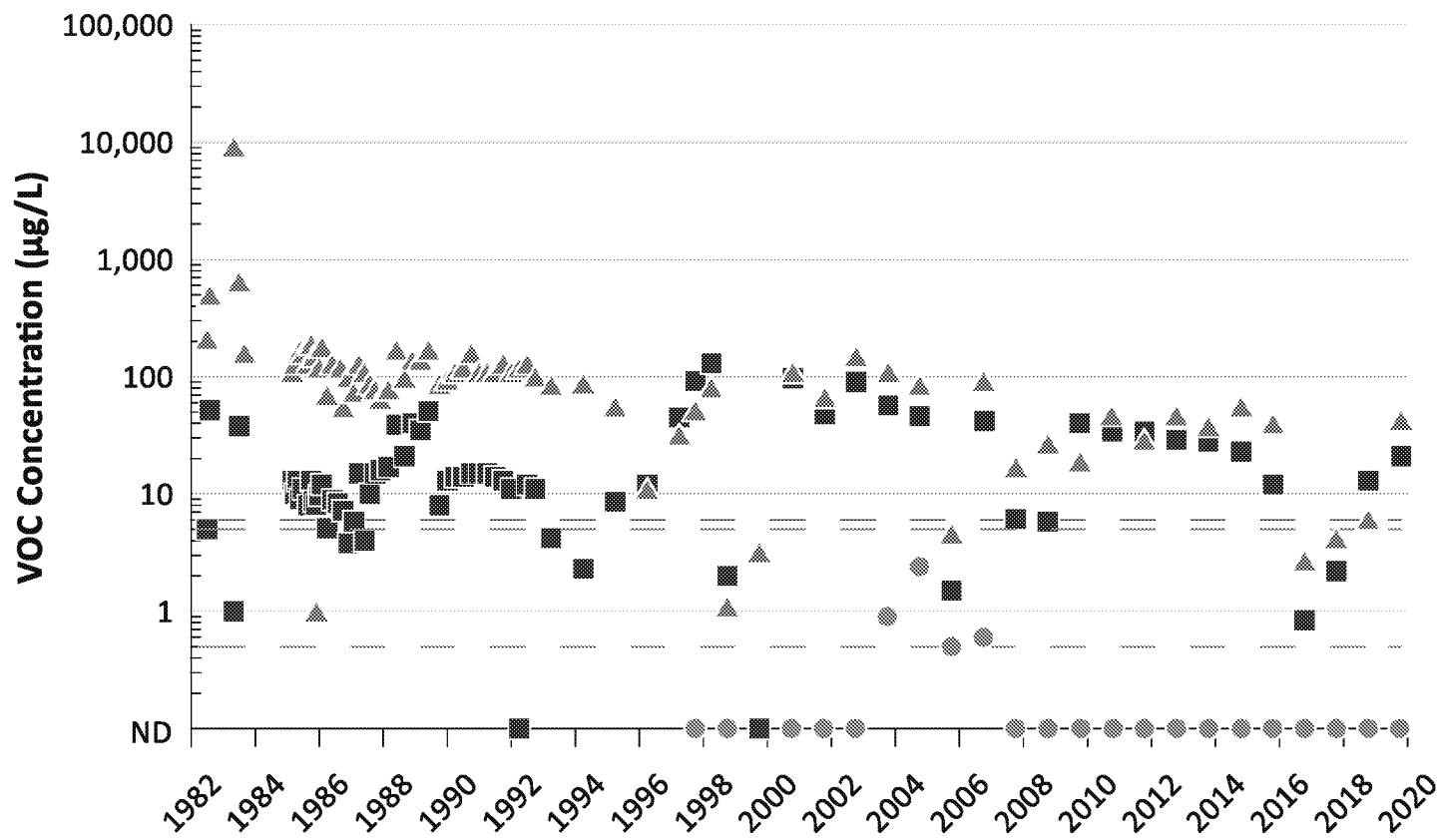
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 29-D

JANUARY 2020

FIGURE F-13

# 36-D



▲▲▲ TCE
■■■ cDCE
●●● VC
--- TCE Clean Up Goal
--- cDCE Clean Up Goal
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
 cDCE = CIS-1,2-DICHLOROETHENE  
 VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

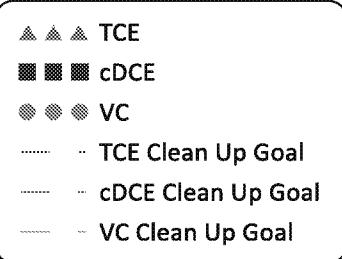
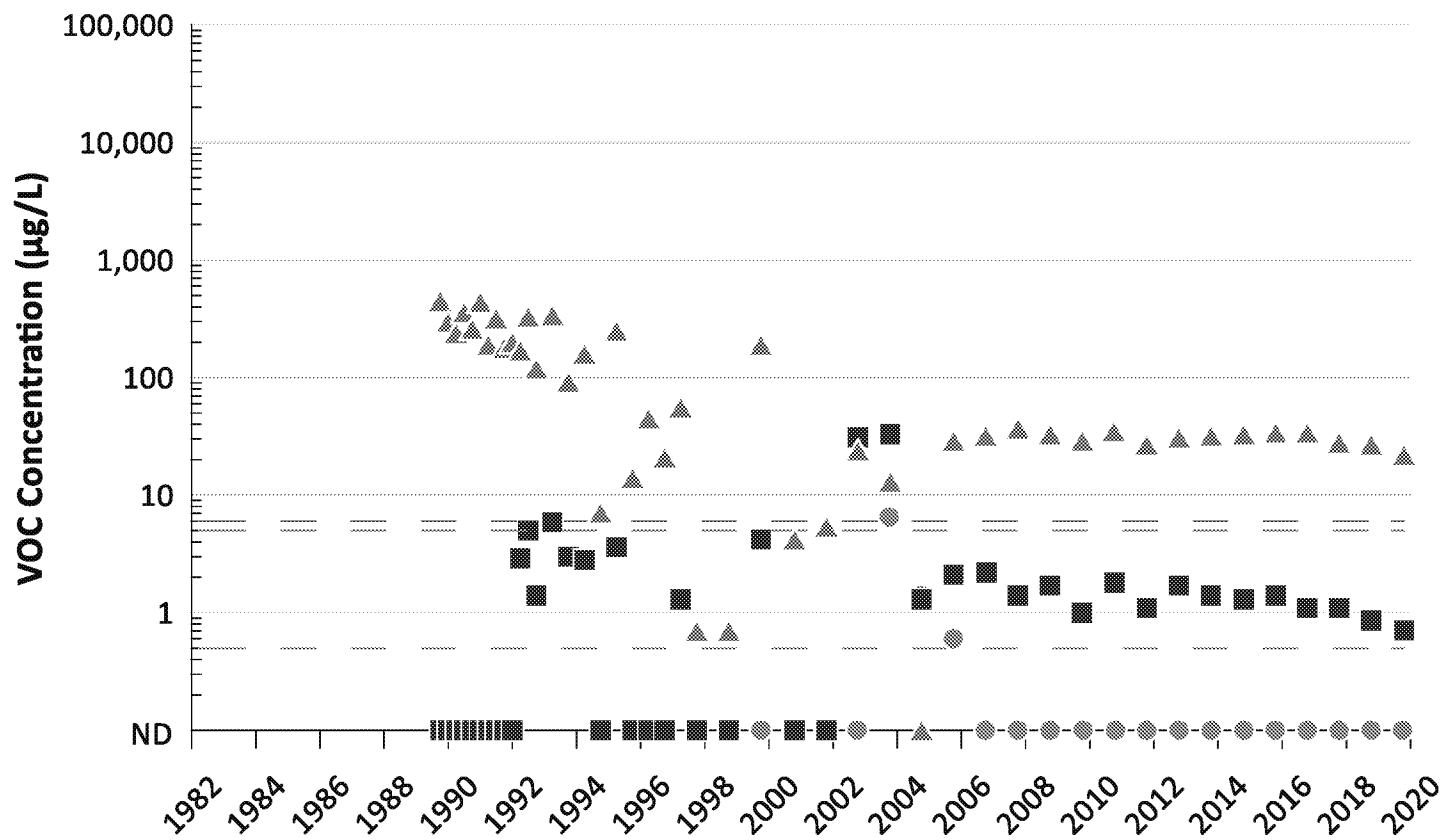
FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
 WELL 36-D

JANUARY 2020

FIGURE F-14

**52-D**



**ABBREVIATIONS**

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

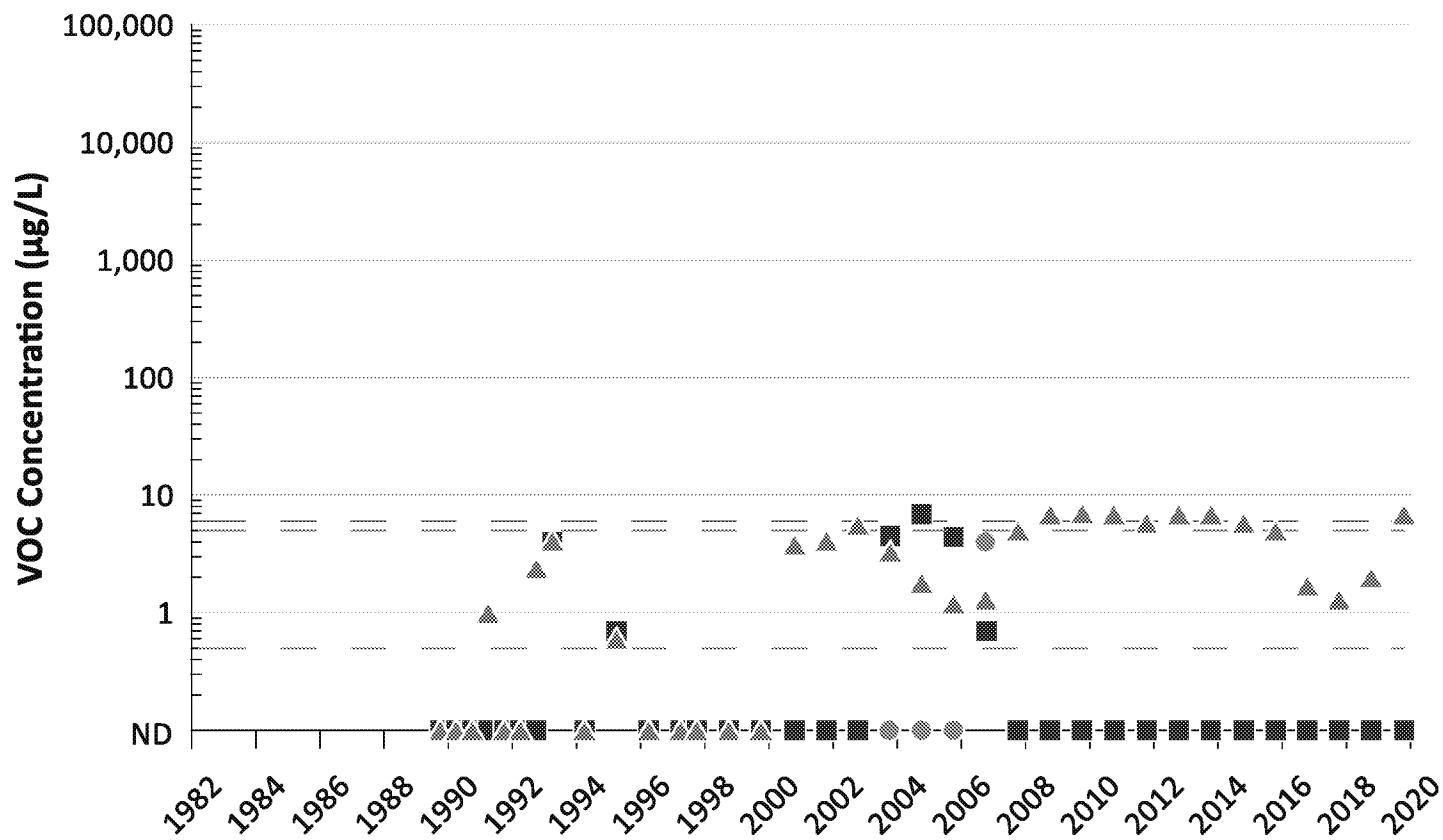
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

**CONCENTRATION TRENDS FOR  
WELL 52-D**

JANUARY 2020

**FIGURE F-15**

**53-D**



▲▲▲	TCE
■■■	cDCE
●●●	VC
-----	TCE Clean Up Goal
-----	cDCE Clean Up Goal
-----	VC Clean Up Goal

**ABBREVIATIONS**

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

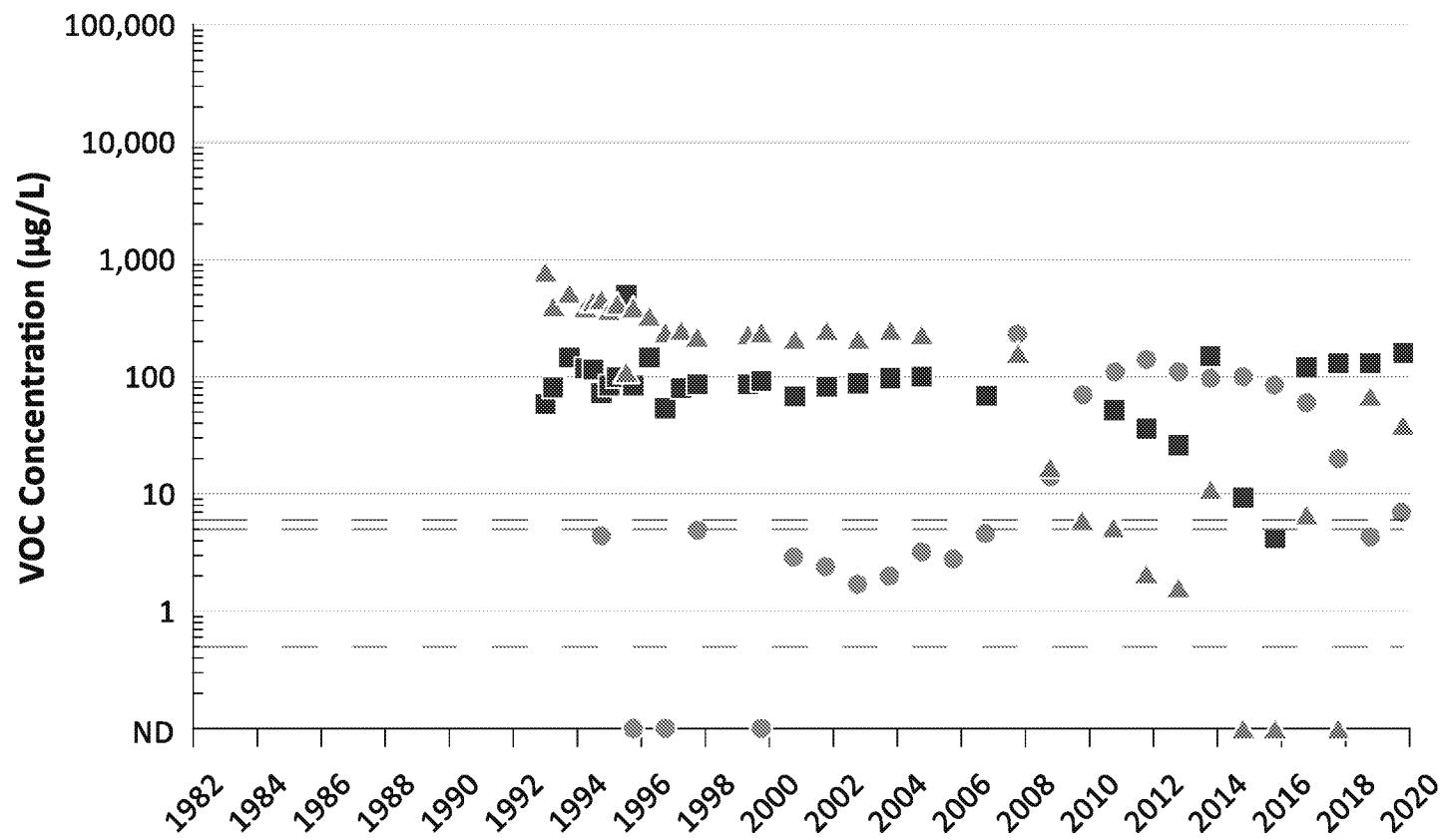
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 53-D

JANUARY 2020

**FIGURE F-16**

# DW-7



- ▲▲▲ TCE
- cDCE
- VC
- - - TCE Clean Up Goal
- - - cDCE Clean Up Goal
- - - VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
 cDCE = CIS-1,2-DICHLOROETHENE  
 VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

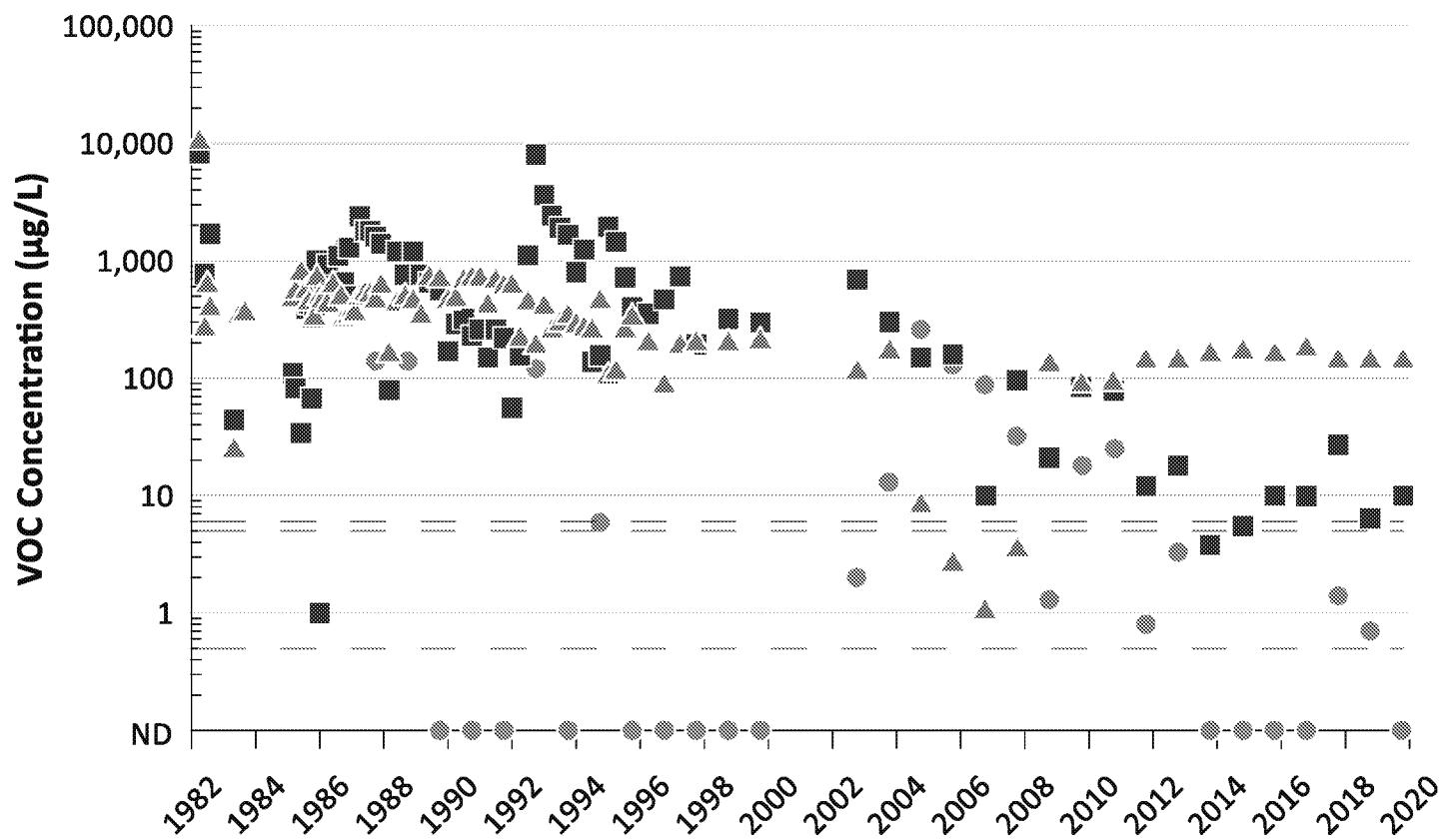
FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
 WELL DW-7

JANUARY 2020

**FIGURE F-17**

# 22-DD



▲▲▲ TCE  
■■■ cDCE  
●●● VC  
--- TCE Clean Up Goal  
--- cDCE Clean Up Goal  
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

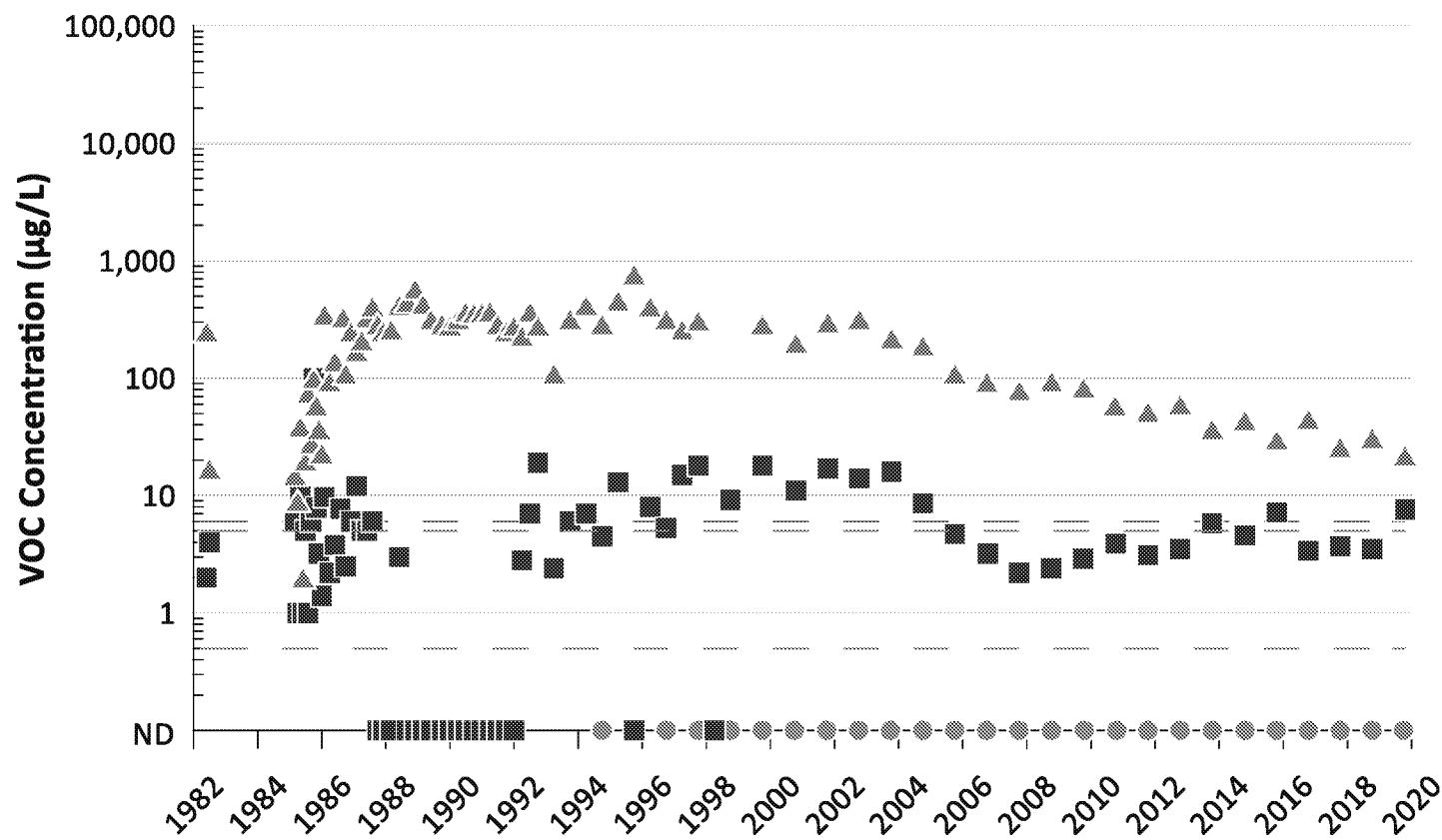
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
WELL 22-DD

JANUARY 2020

FIGURE F-18

# 27-DD



▲▲▲ TCE
■■■ cDCE
●●● VC
--- TCE Clean Up Goal
--- cDCE Clean Up Goal
--- VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
 cDCE = CIS-1,2-DICHLOROETHENE  
 VC = VINYL CHLORIDE  
 $\mu\text{g/L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

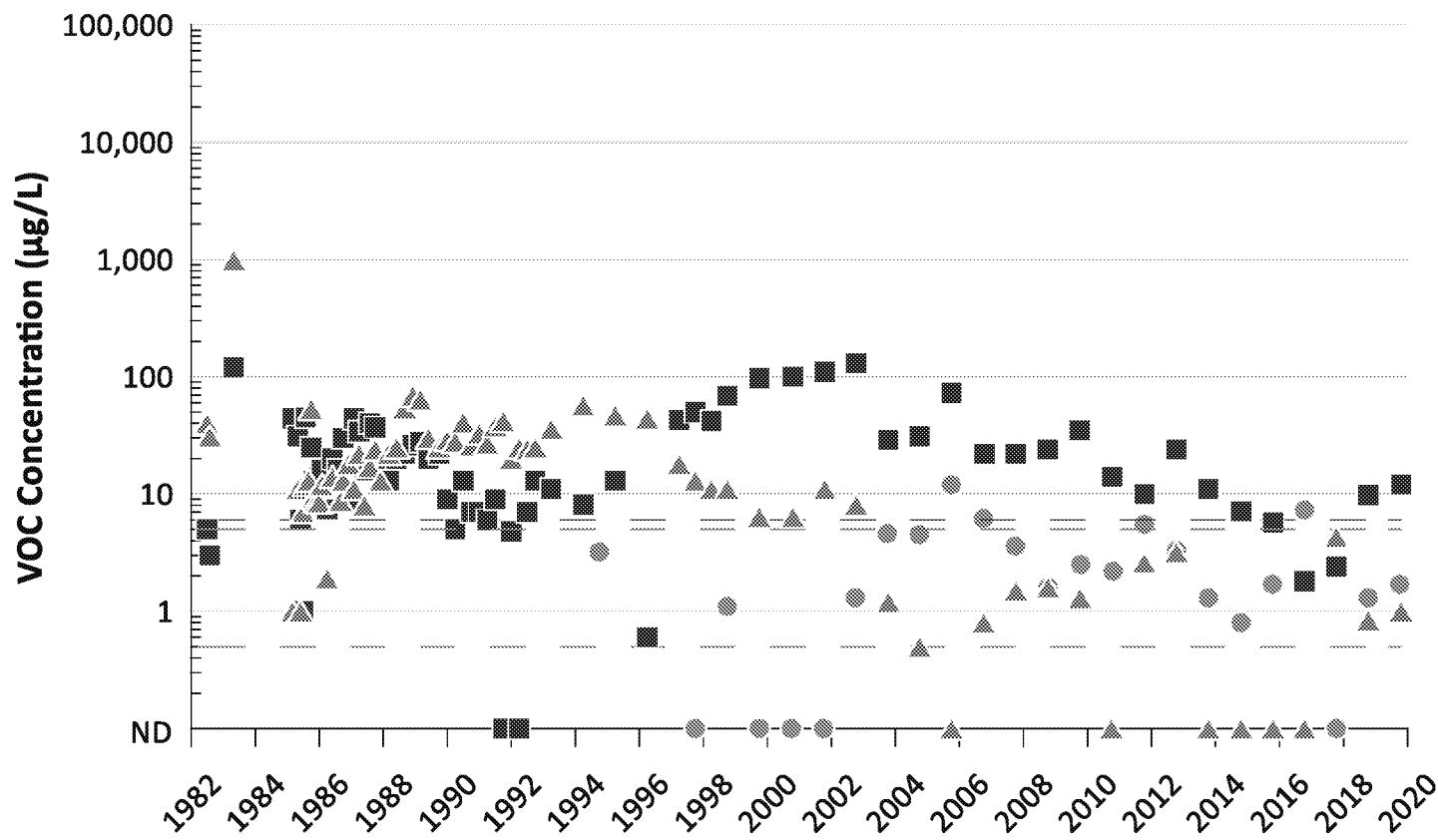
FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

CONCENTRATION TRENDS FOR  
 WELL 27-DD

JANUARY 2020

**FIGURE F-19**

# 36-DD



▲▲▲ TCE  
■■■ cDCE  
●●● VC  
--- - TCE Clean Up Goal  
--- - cDCE Clean Up Goal  
--- - VC Clean Up Goal

## ABBREVIATIONS

TCE = TRICHLOROETHENE  
cDCE = CIS-1,2-DICHLOROETHENE  
VC = VINYL CHLORIDE  
 $\mu\text{g}/\text{L}$  = MICROGRAMS PER LITER

HALEY ALDRICH

FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

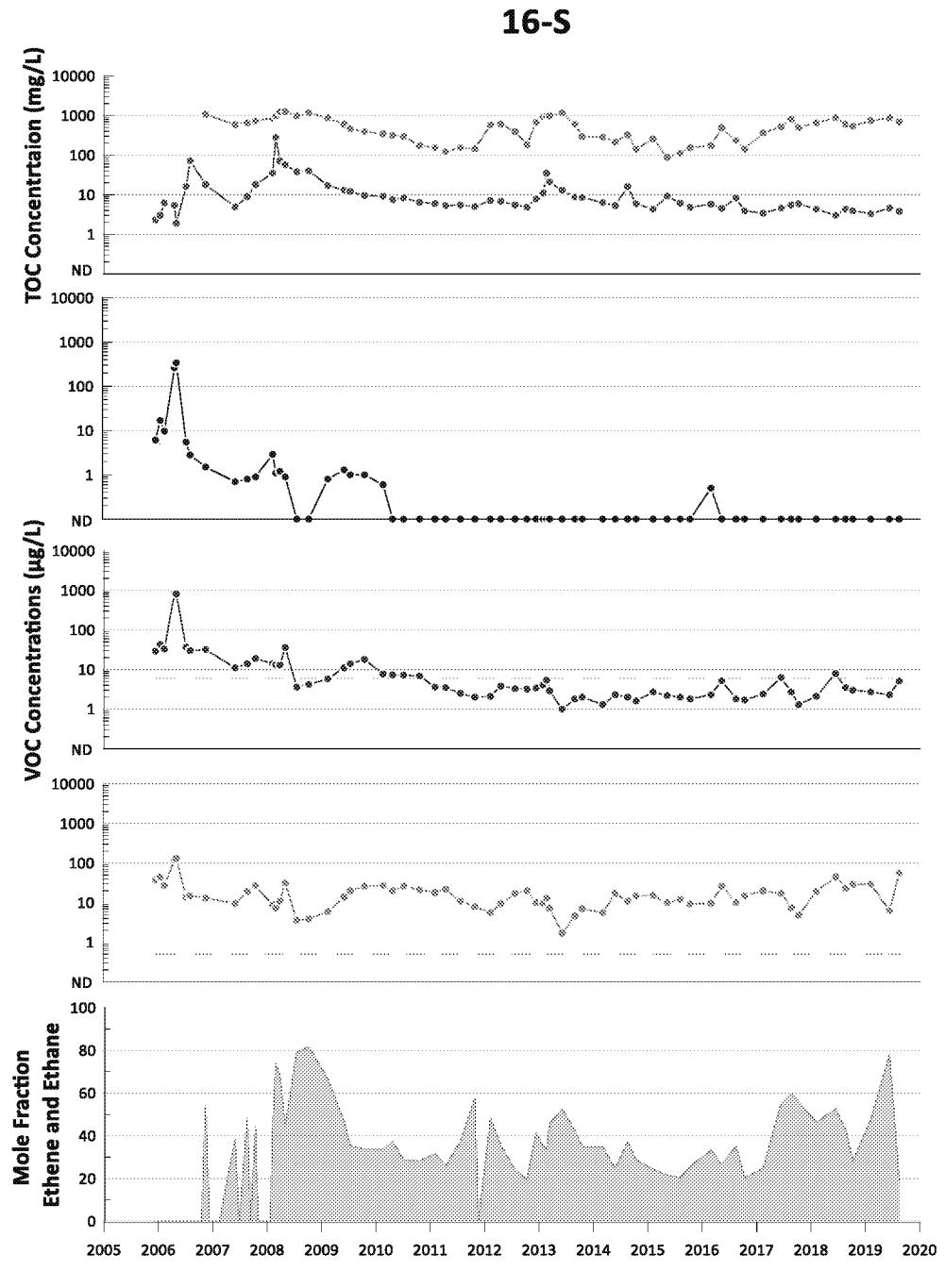
CONCENTRATION TRENDS FOR  
WELL 36-DD

JANUARY 2020

FIGURE F-20

## **APPENDIX G**

### **Concentration Trend Plots for ISB Performance Monitoring Wells**



**Notes**

TOC = Total Organic Carbon  
 TCE = Trichloroethene  
 cDCE = cis-1,2-Dichloroethene  
 VC = Vinyl Chloride  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter

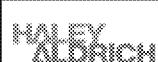
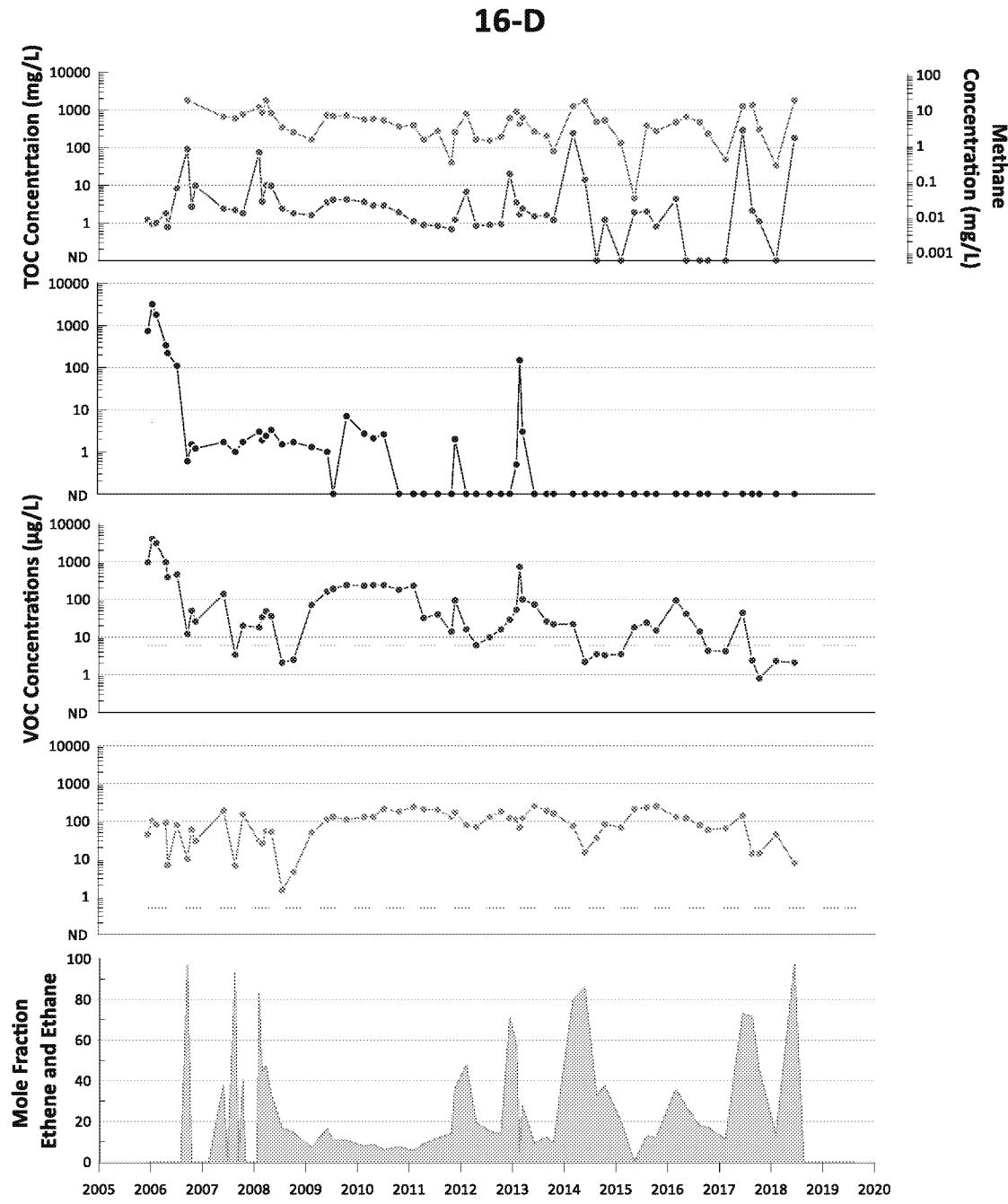


ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL 16-S

JANUARY 2020

**FIGURE G-1**

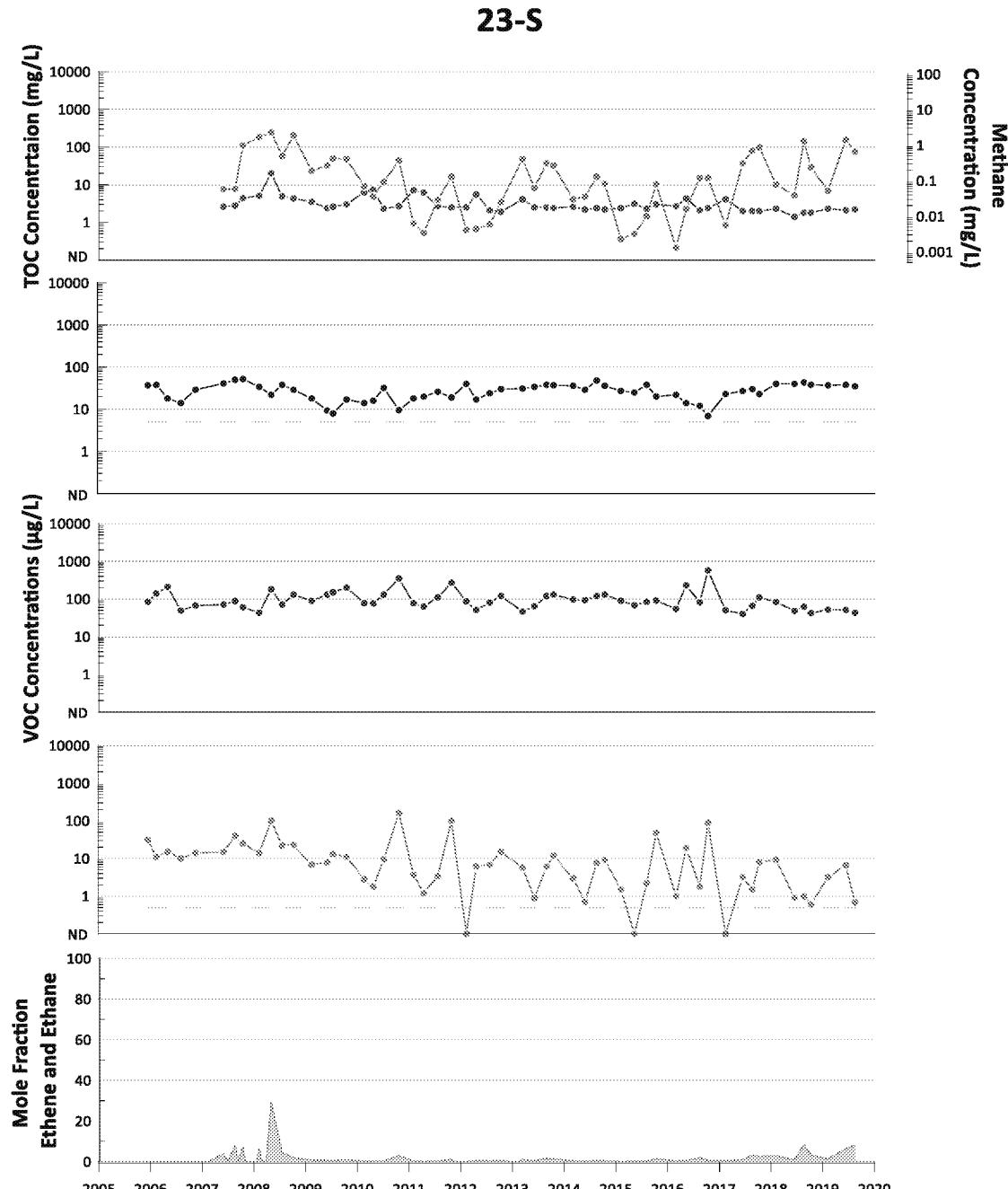


ADVANCED MICRO DEVICES, INC.  
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL 16-D

JANUARY 2020

**FIGURE G-2**



•••• TOC  
 •••• Methane  
 •••• TCE  
 •••• cDCE  
 •••• VC  
 ..... Clean Up Goal  
 ■■■■ Mole Fraction Ethene and Ethane

Notes  
 TOC = Total Organic Carbon  
 TCE = Trichloroethene  
 cDCE = cis-1,2-Dichloroethene  
 VC = Vinyl Chloride  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter

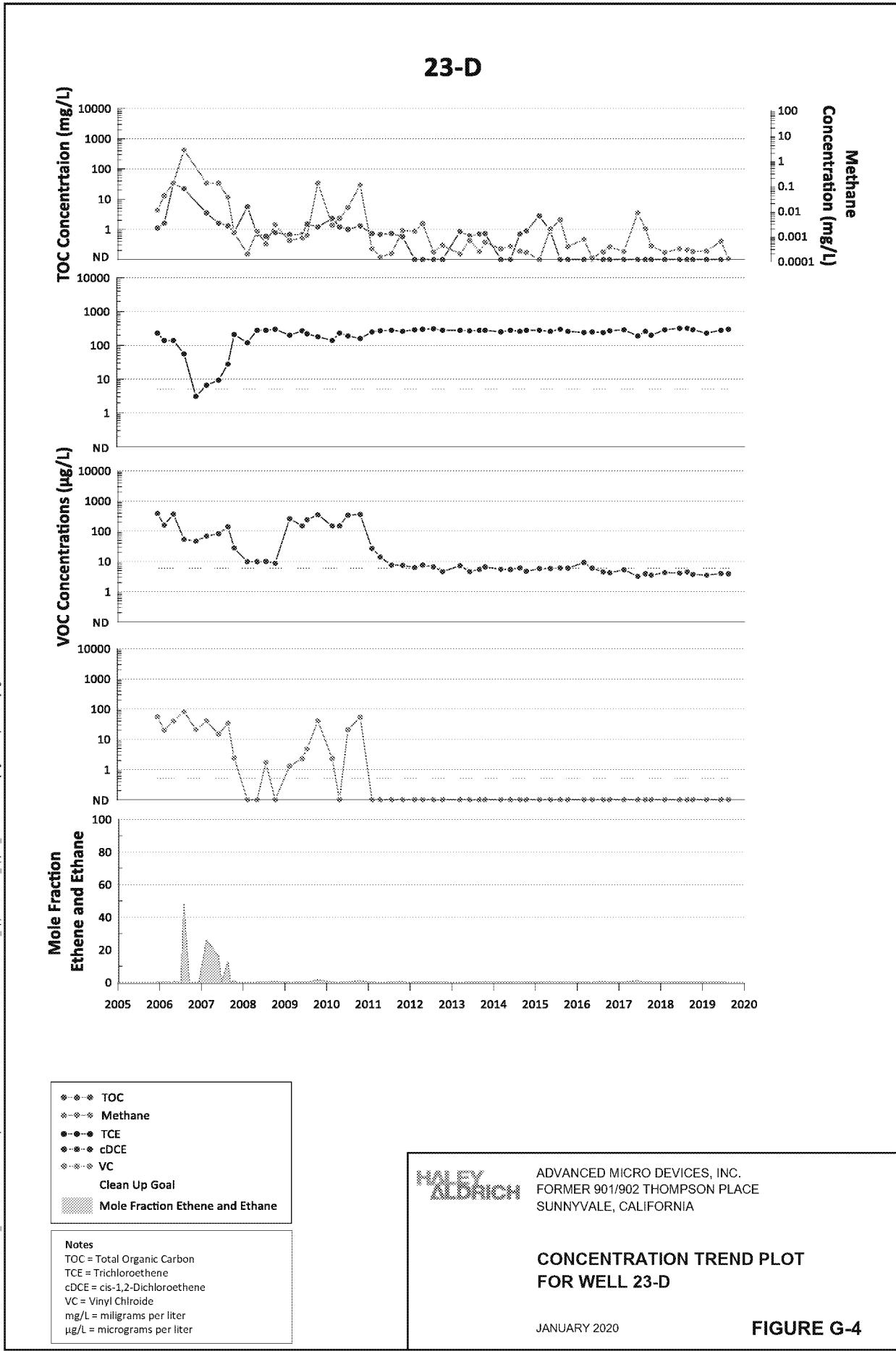


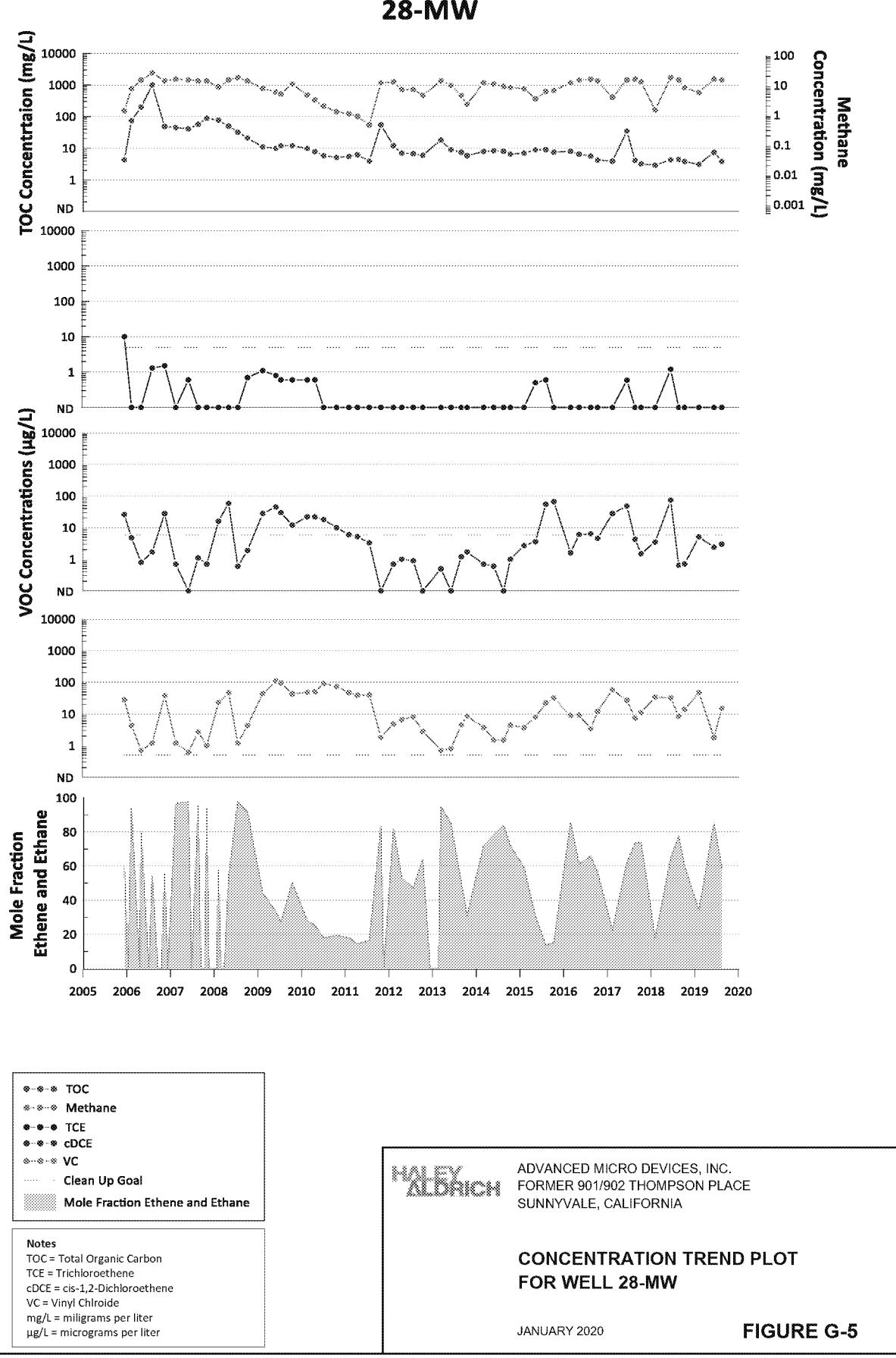
ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

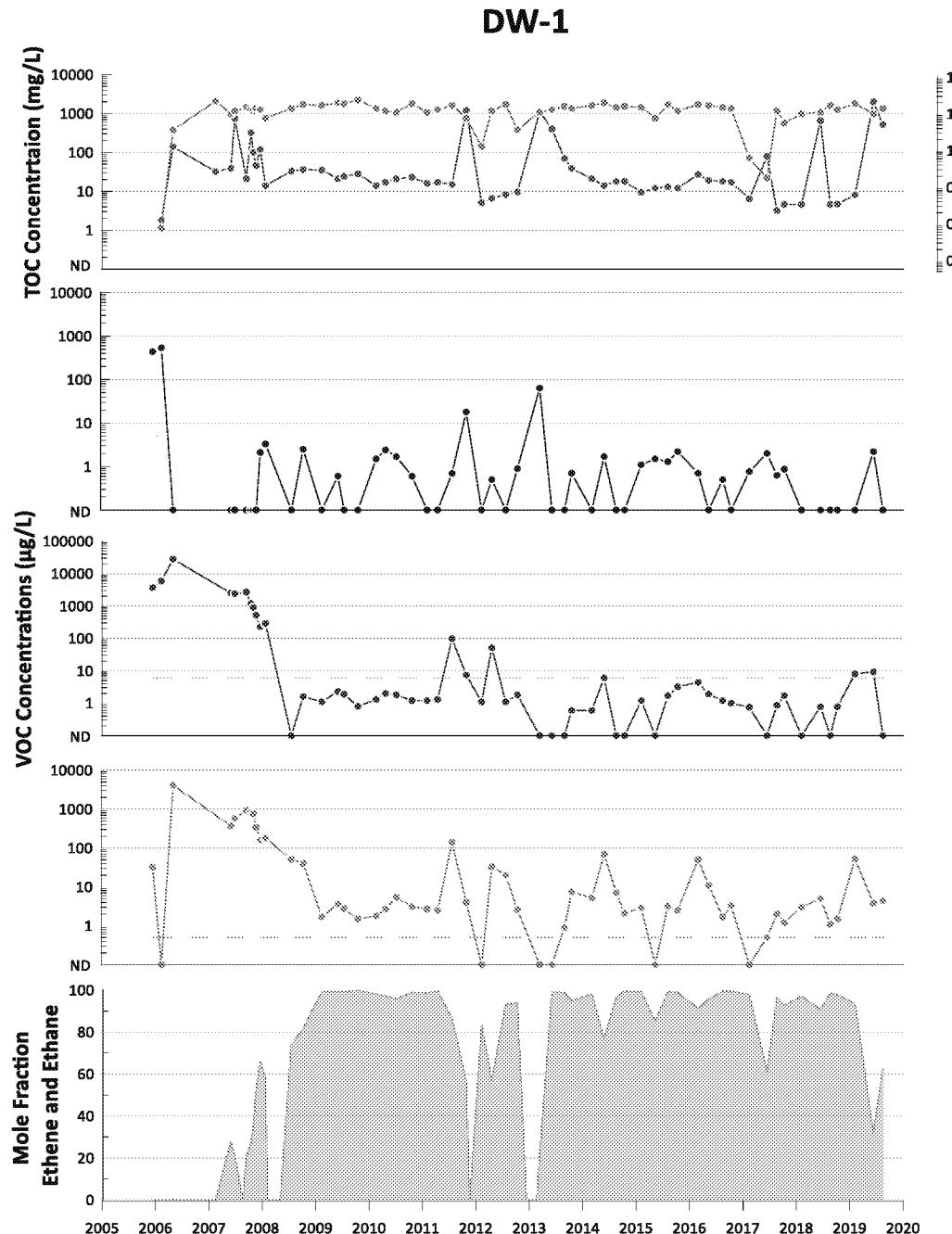
#### CONCENTRATION TREND PLOT FOR WELL 23-S

JANUARY 2020

**FIGURE G-3**







G:\Advanced Micro Devices\1\_Formal 901-902 Thompson Place\DELIVERABLES\Annual GWR\2019\4\_Appendices\10\_Appendix G\ISB well trends\{Figure template.xls\}\Figure G-6

Notes

TOC = Total Organic Carbon  
 TCE = Trichloroethene  
 cDCE = cis-1,2-Dichloroethene  
 VC = Vinyl Chloride  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter

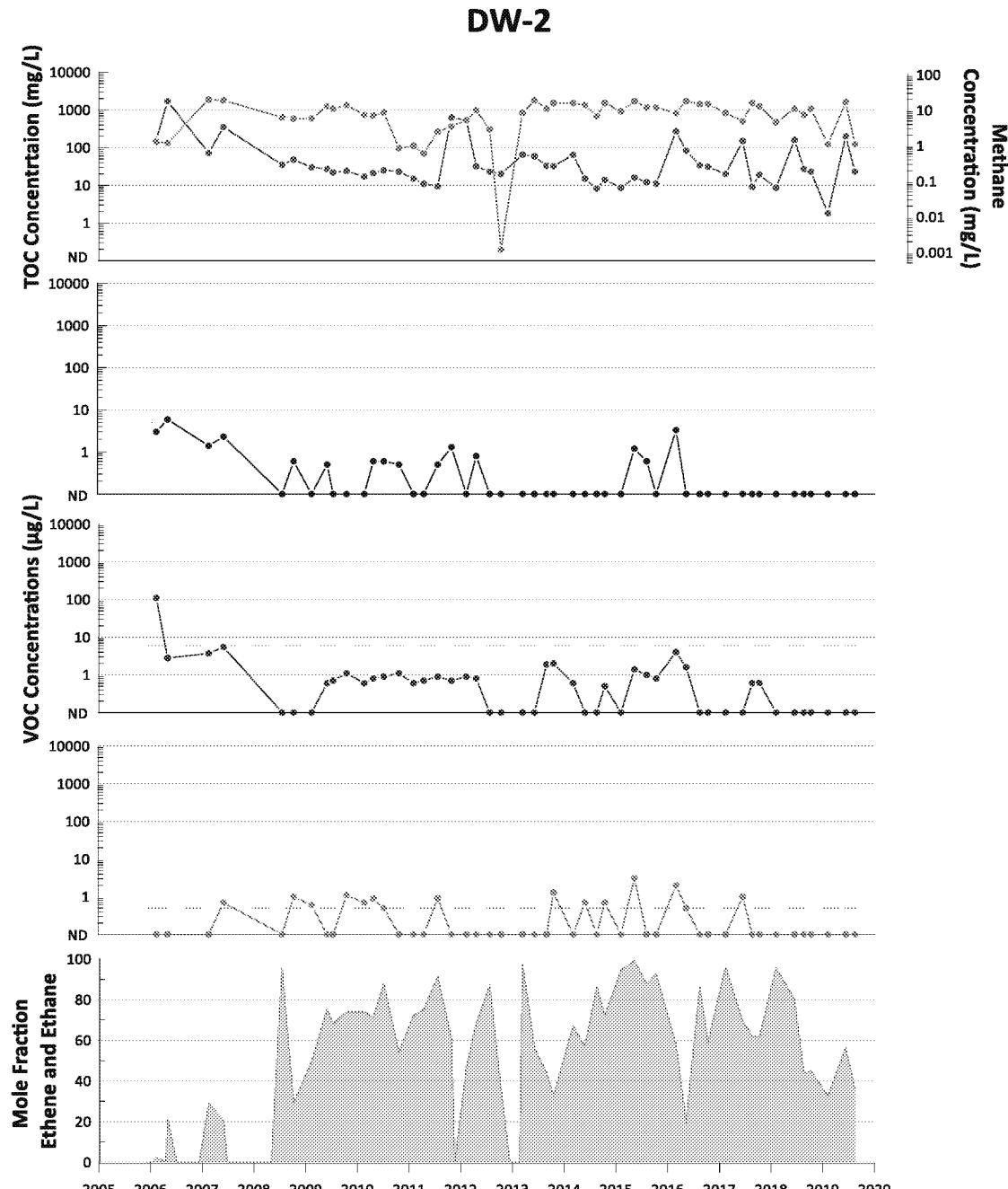


ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL DW-1

JANUARY 2020

**FIGURE G-6**

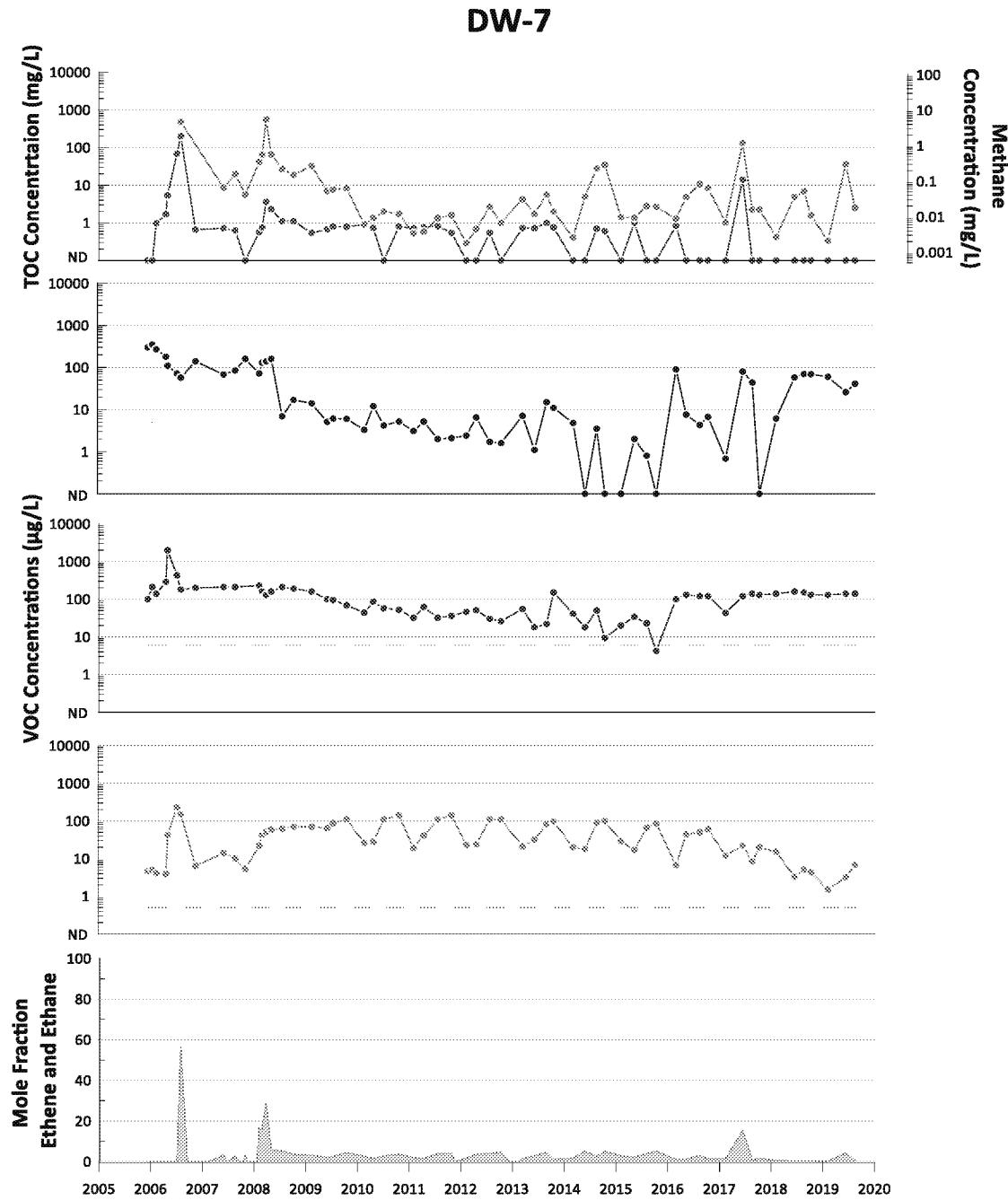


ADVANCED MICRO DEVICES, INC.  
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL DW-2

JANUARY 2020

**FIGURE G-7**

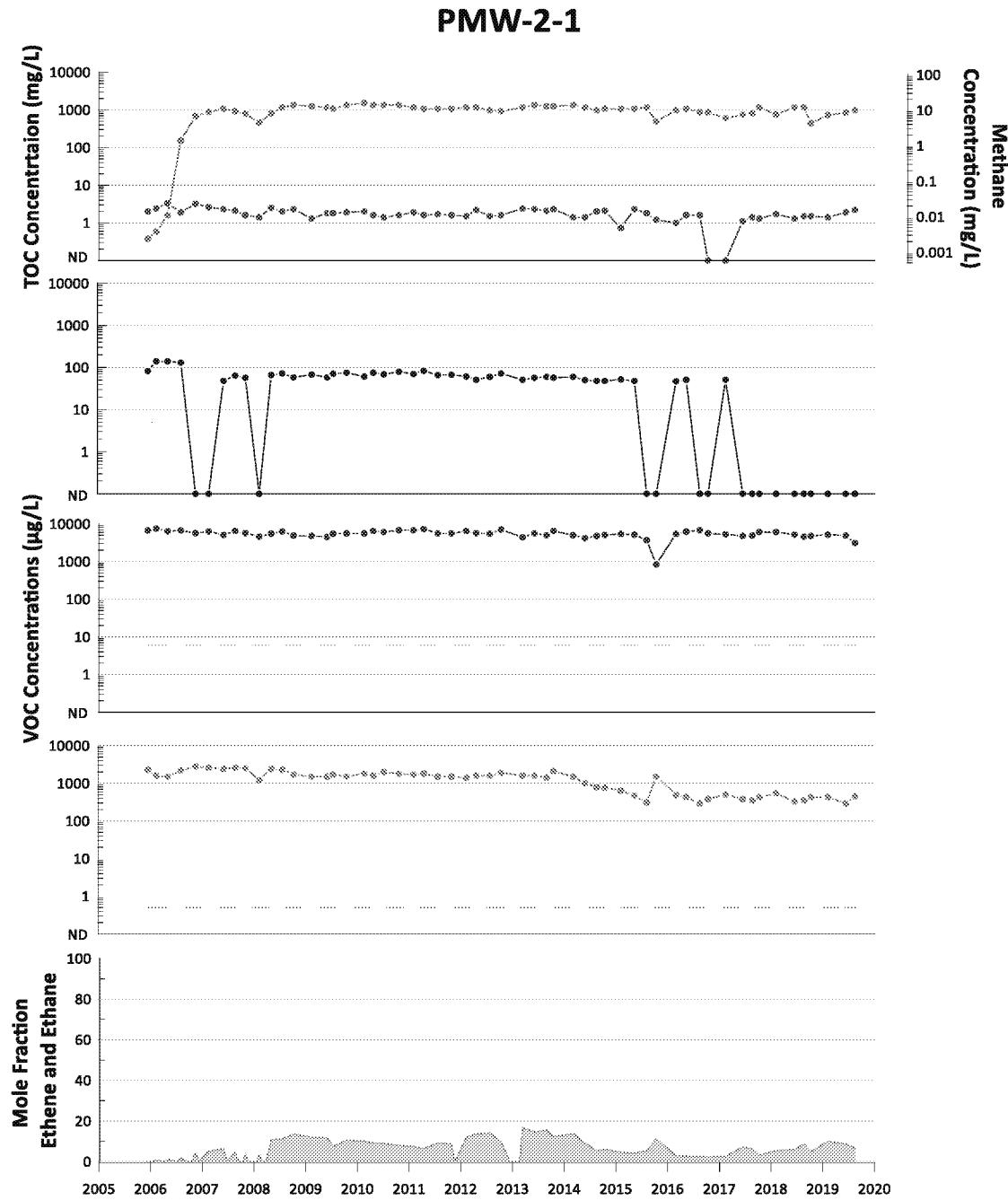


ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL DW-7

JANUARY 2020

**FIGURE G-8**



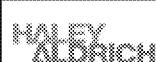
G:\Advanced Micro Devices\1\_Formal 901-902 Thompson Place\DELIVERABLES\Annual GWMR\2019\4\_Appendices\10\_Appendix G\ISB well trends\{Figure template.xls\}Figure G-9

Legend:

- TOC
- Methane
- TCE
- cDCE
- VC
- Clean Up Goal
- Mole Fraction Ethene and Ethane

**Notes**

TOC = Total Organic Carbon  
 TCE = Trichloroethene  
 cDCE = cis-1,2-Dichloroethene  
 VC = Vinyl Chloride  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter



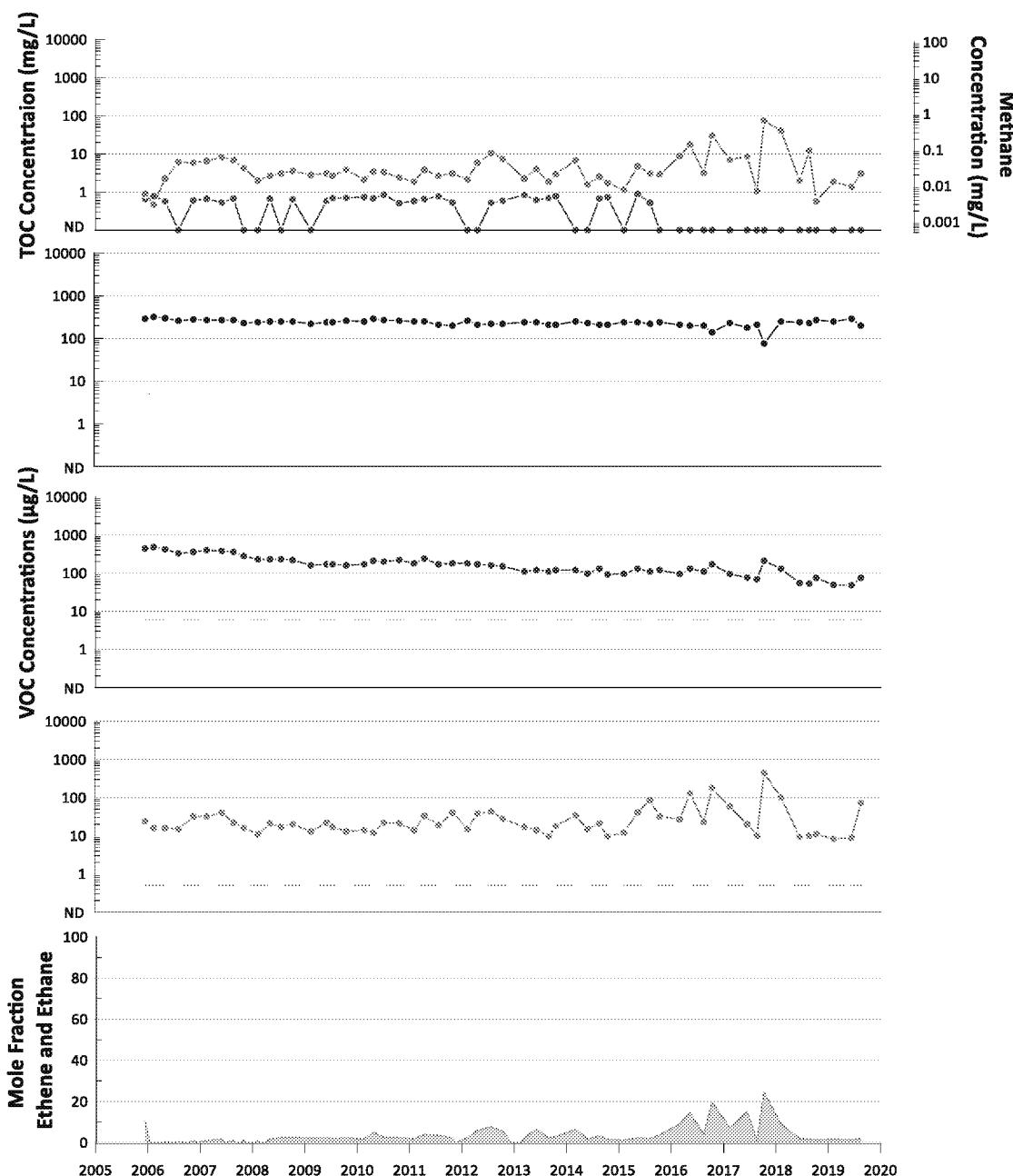
ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL PMW-2-1

JANUARY 2020

**FIGURE G-9**

## PMW-2-3



•—• TOC
•—• Methane
•—• TCE
•—• cDCE
•—• VC
..... Clean Up Goal
■■■ Mole Fraction Ethene and Ethane

**Notes**  
 TOC = Total Organic Carbon  
 TCE = Trichloroethene  
 cDCE = cis-1,2-Dichloroethene  
 VC = Vinyl Chloride  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter

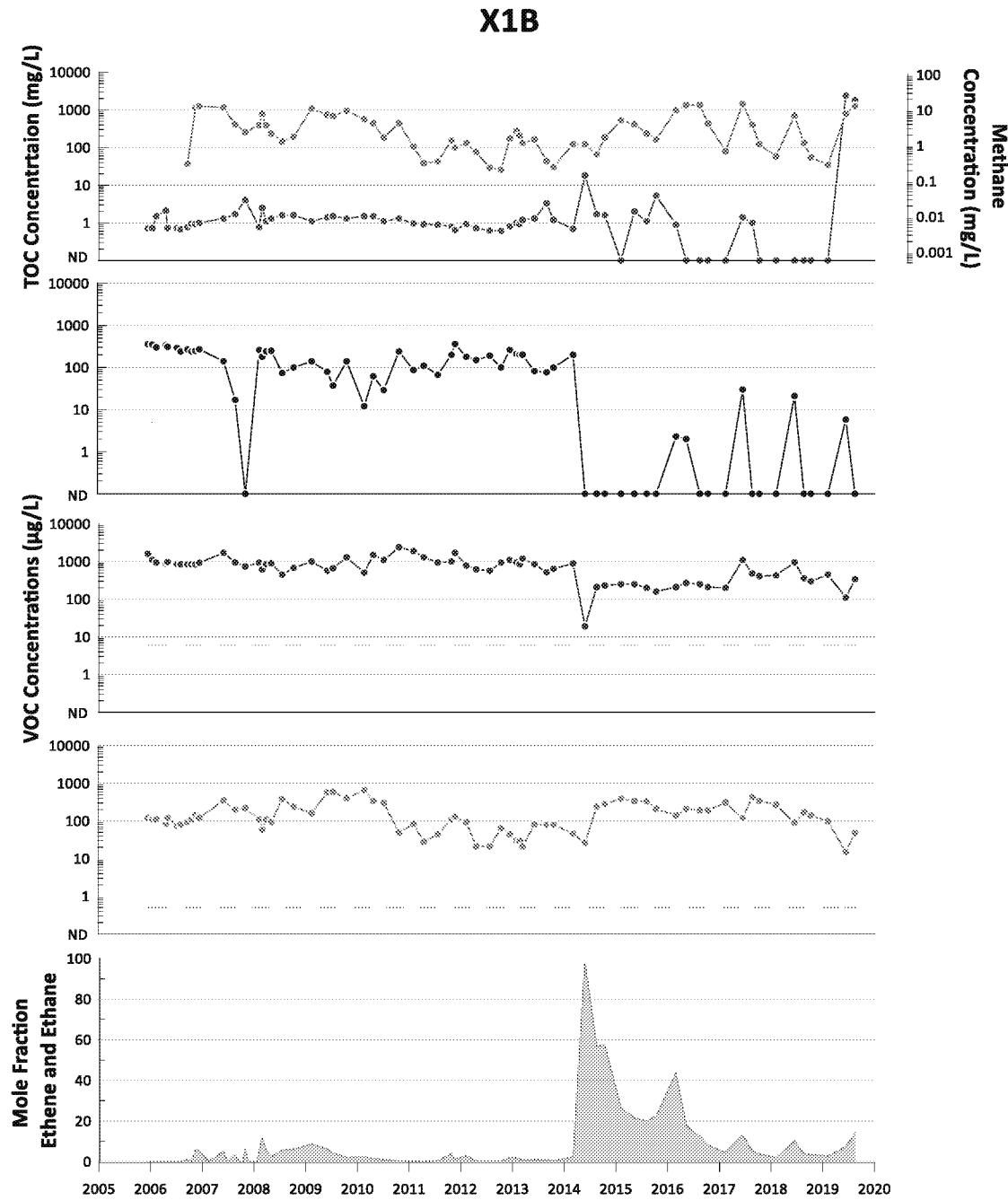


ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

### CONCENTRATION TREND PLOT FOR WELL PMW-2-3

JANUARY 2020

**FIGURE G-10**



•—• TOC  
•—• Methane  
•—• TCE  
•—• cDCE  
•—• VC  
..... Clean Up Goal  
..... Mole Fraction Ethene and Ethane

**Notes**  
 TOC = Total Organic Carbon  
 TCE = Trichloroethene  
 cDCE = cis-1,2-Dichloroethene  
 VC = Vinyl Chloride  
 mg/L = milligrams per liter  
 $\mu\text{g}/\text{L}$  = micrograms per liter

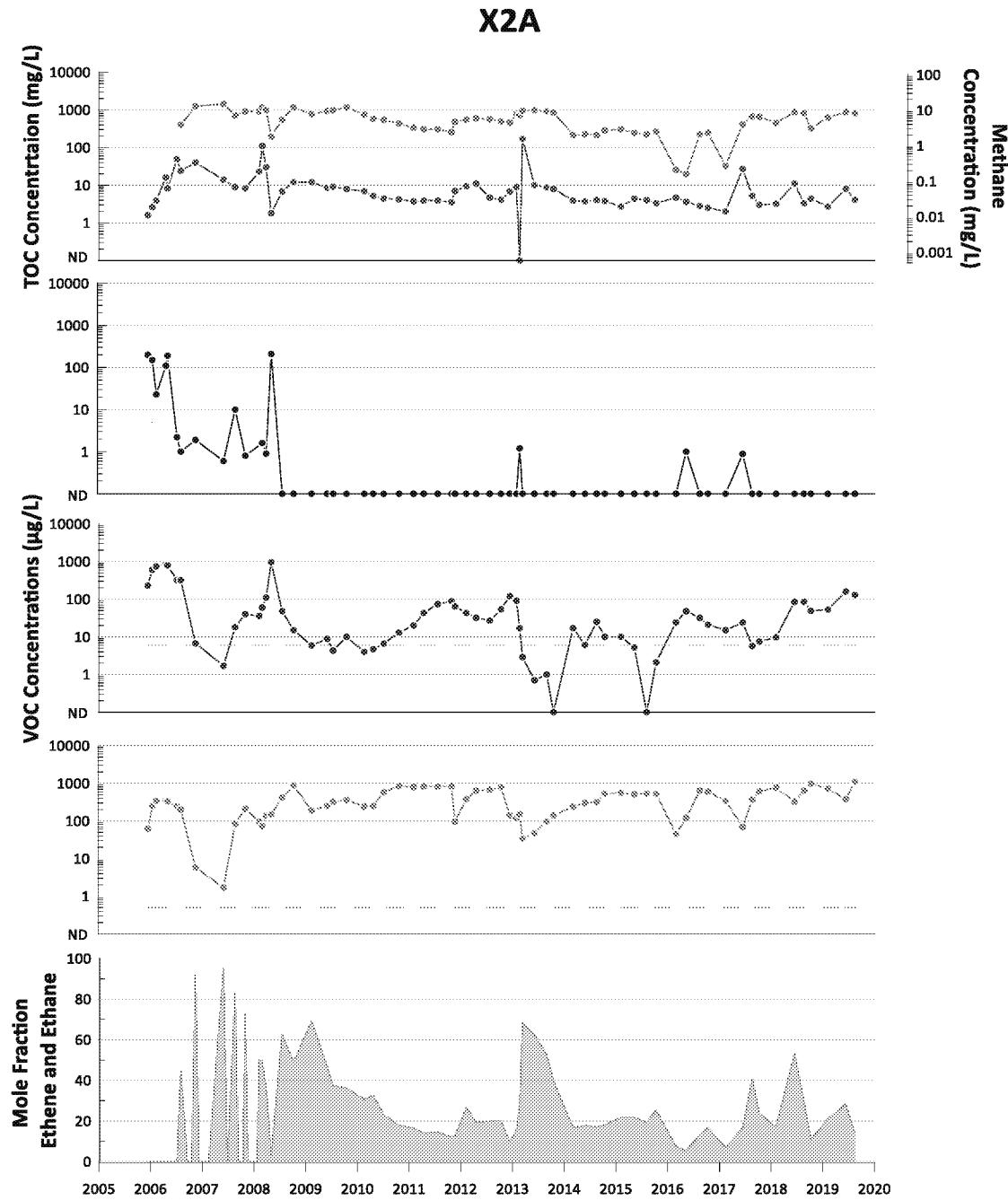


ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL X1B

JANUARY 2020

**FIGURE G-11**



- TOC
- Methane
- TCE
- cDCE
- VC
- ..... Clean Up Goal
- Mole Fraction Ethene and Ethane

**Notes**

TOC = Total Organic Carbon  
 TCE = Trichloroethene  
 cDCE = cis-1,2-Dichloroethene  
 VC = Vinyl Chloride  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter

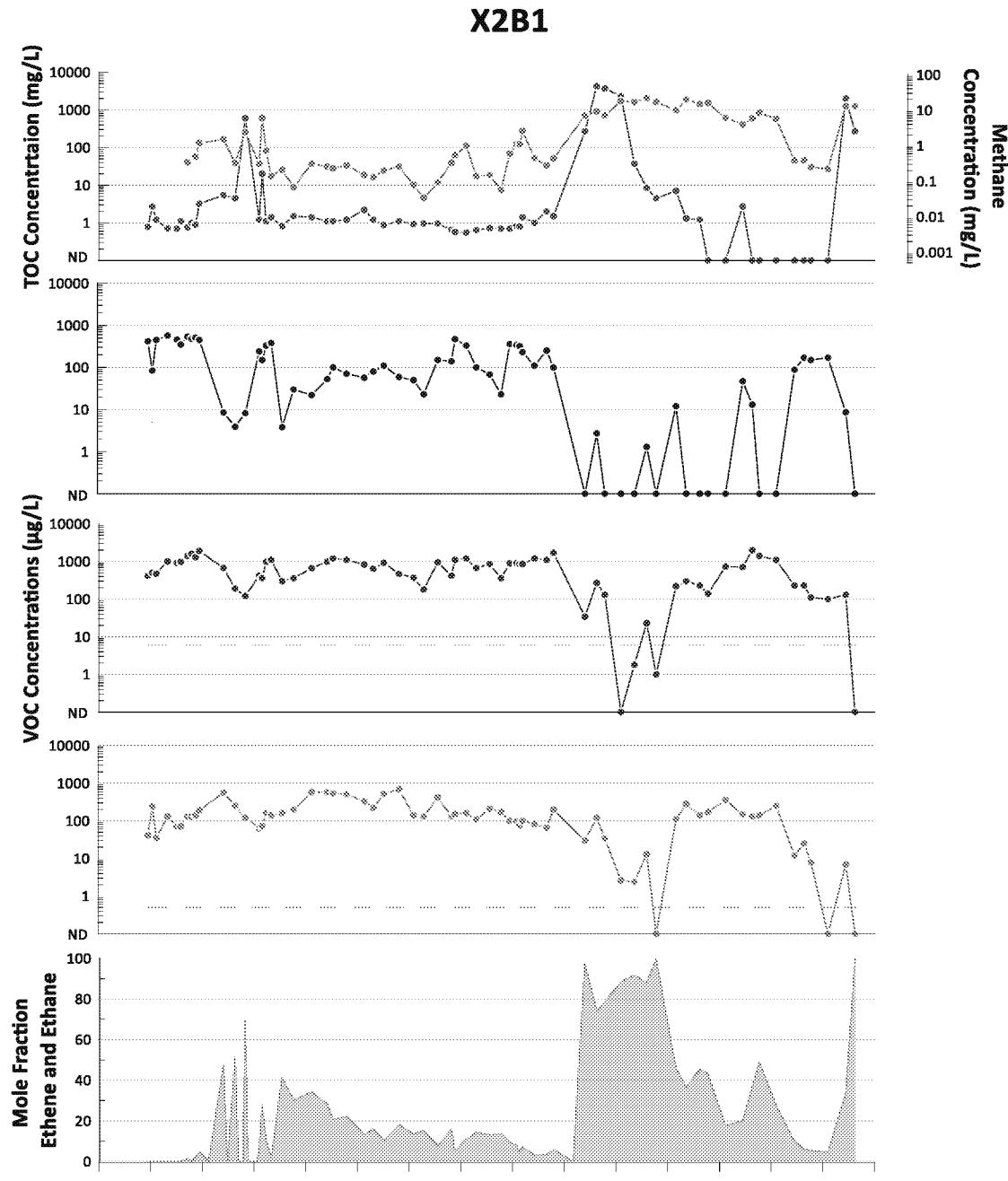


ADVANCED MICRO DEVICES, INC.  
 FORMER 901/902 THOMPSON PLACE  
 SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL X2A

JANUARY 2020

**FIGURE G-12**



ADVANCED MICRO DEVICES, INC.  
FORMER 901/902 THOMPSON PLACE  
SUNNYVALE, CALIFORNIA

#### CONCENTRATION TREND PLOT FOR WELL X2B1

JANUARY 2020

**FIGURE G-13**